Proposals for the
NORTH SHORE

Avery Architectural and Fine Arts Library
Gift of Seymour B. Durst Old York Library

Proposals for the
NORTH SHORE

Abraham D. Beame
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City of New York

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OVL12124 BOX 102

Vista from vacant waterfront site in College Point looking across the East River toward Soundview in the Bronx.

Introduction

This report deals with a classic planning problem and recurring issue for local residents: can new development be accommodated in a way that complements the qualities and life styles of existing communities?

The North Shore consists of five contiguous close-knit communities located generally along the Queens waterfront from Flushing Bay to Little Neck Bay--College Point (Malba), Whitestone (Beechhurst), Bayside (Bay Terrace), Douglaston-Little Neck and Creedmoor. These attractive, middle-income neighborhoods have sound housing, pleasant views, unique natural areas, good schools and a stable population with diverse ethnic roots. The housing is mainly low--generally two- or three-stories--with several notable exceptions. In many respects the communities are linked small towns in the city.

Much of the North Shore's early history is tied to waterfront industrial development. Now, as trucks replace barges and lighters, industry's dependence on a shore location is waning. Much of the industrially zoned waterfront is strewn with the hulks of cars and appliances and is no longer in productive use. While some of these waterfront locations may have no future for industry, private developers believe they do have a future for new housing.

In addition to these waterfront locations there is other vacant land in the study area zoned for commercial and residential use proposed by private developers for new housing.

Over the past decade private developers have made a variety of inquiries for zoning changes for new housing on 16 sites in (and one immediately adjoining) the North Shore study area.

As a result of this long-term and continuing interest by developers, and a concomittant concern by community residents, a study was undertaken to prepare planning guidelines for the North Shore.

Specifically, community boards 7 and 11 asked the Department of City Planning to:

- Develop general land use recommendations for vacant and underutilized parcels;

- Evaluate existing services and facilities and recommend needed improvements, and

- Prepare design guidelines insuring public access to the waterfront and the compatibility of any new development with the surrounding neighborhood.

To carry out the study, we reviewed the characteristics of the potential development sites and of the adjoining neighborhoods. We examined demographic data as well as ecological and environmental features.

We also analyzed the capacity of the existing infrastructure--sewers, utilities, schools, highways, public transportation, shops and other community facilities--to meet existing and possible new demands.

Meetings were held during the course of the study with community groups and elected officials, as well as with developers and architects.

This comprehensive planning report is the result of our discussions and analyses. It sets forth a series of land use and design options and proposes transportation and utility improvements. It examines existing conditions and assesses existing community needs, preferences and trends.

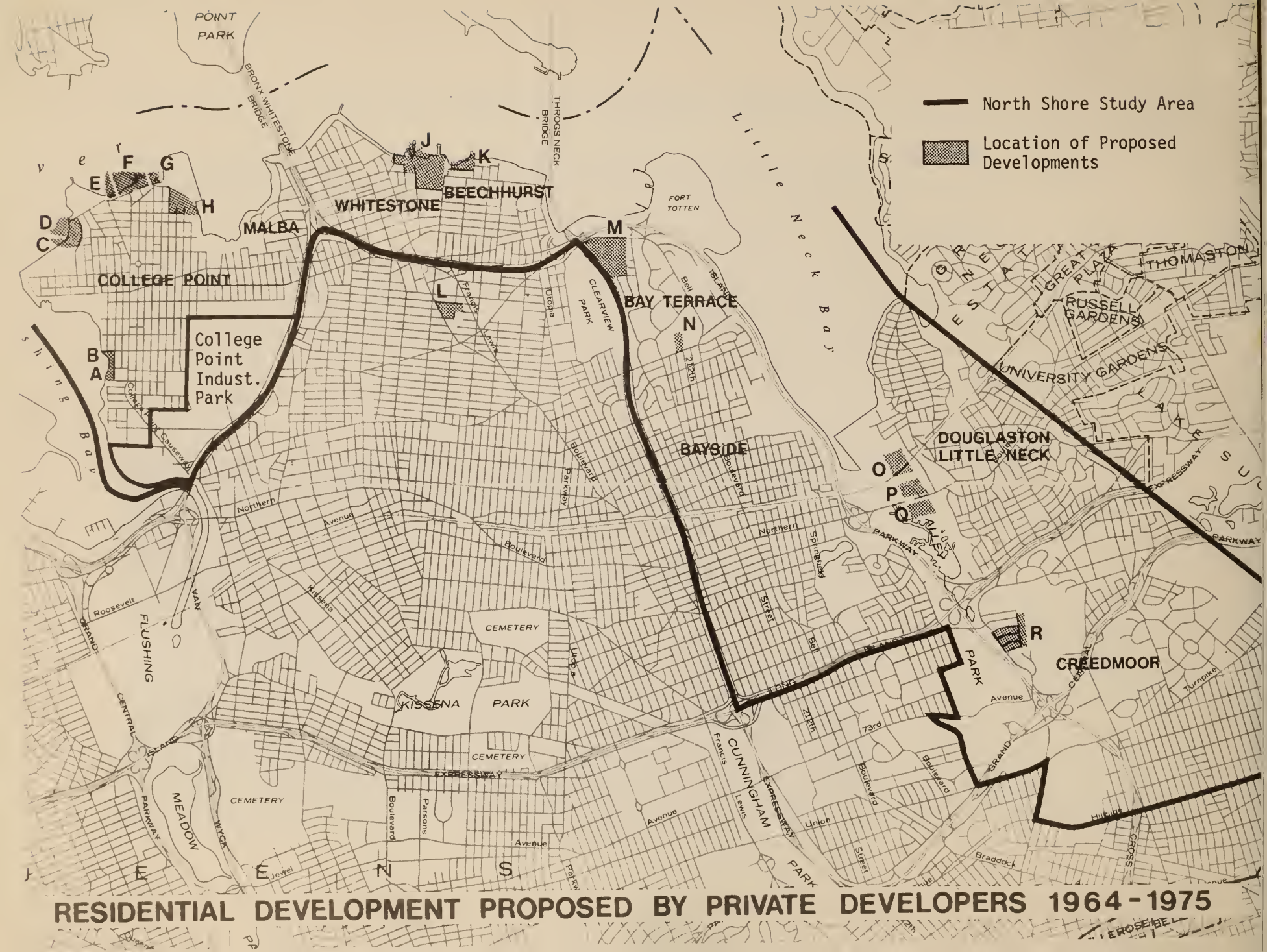
It responds positively to the issue of accommodating new private development--when and if it occurs--in a way that complements the qualities and life styles of existing communities. It also proposes that the City acquire three parcels that had been proposed for private residential development and that they be retained in their natural state as wetlands or used for recreation. Two other areas would also be acquired and reserved for recreational and environmental purposes.

The report suggests two alternative approaches to guiding change: a special zoning district for the North Shore waterfront, or the use of existing planning tools to carry out design recommendations. These alternatives are advanced for consideration and evaluation in the context of the needs, dynamics and qualities of the North Shore and its communities.

The report will be presented to the community boards for their views. Local hearings will be held by the boards.

Based on community review and consultation, specific legislation or planning guidelines can be prepared that work best to balance community needs and the realities of change, to enrich the fabric of the North Shore.

Wetlands at Udall's Cove (above) and Powell's Cove would be preserved.



RESIDENTIAL DEVELOPMENT PROPOSED BY PRIVATE DEVELOPERS 1964-1975

Summary of Recommendations

These recommendations evolved out of the study and analysis of the five North Shore communities--and a consideration of the North Shore as an entity linking these communities.

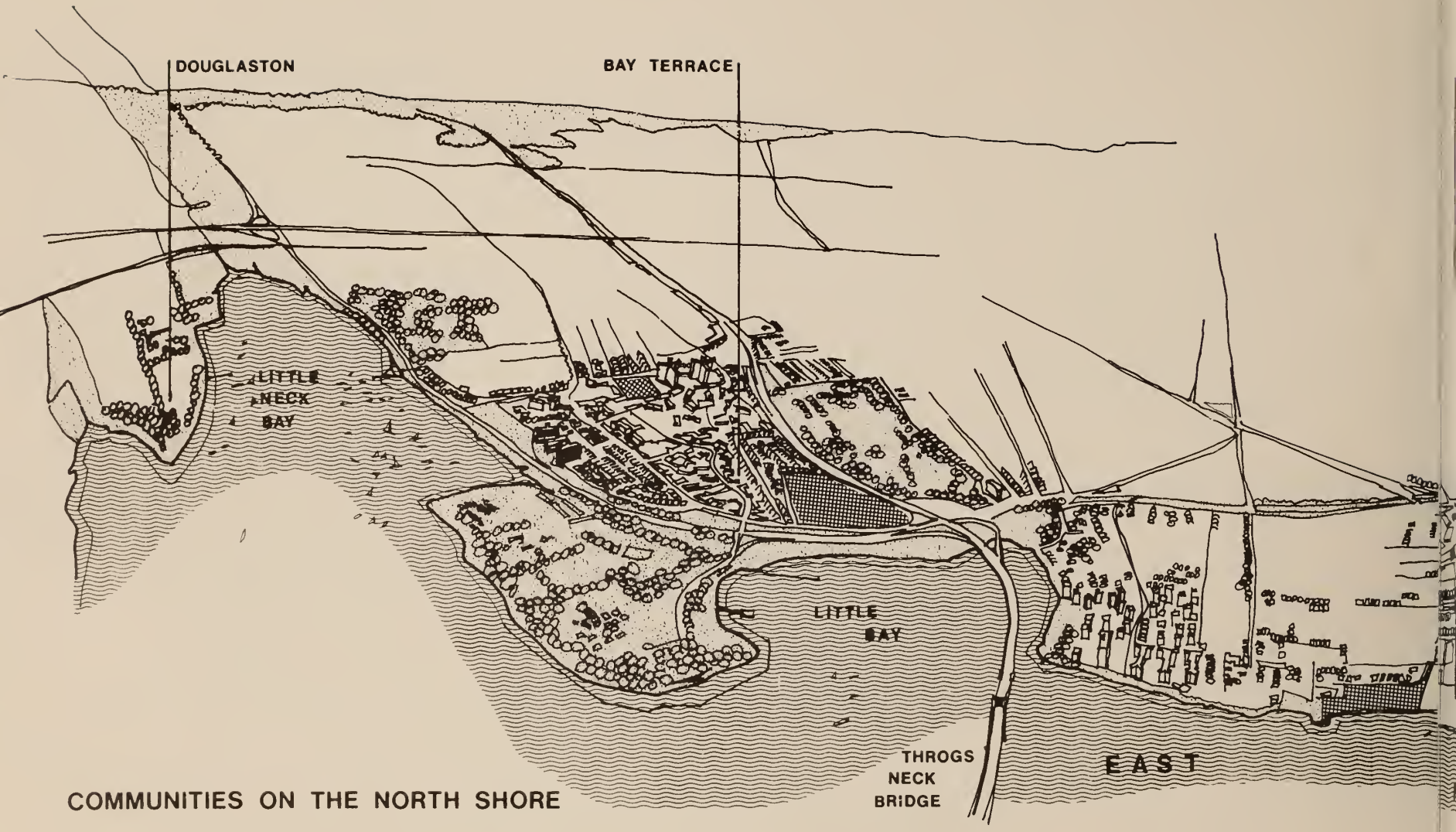
The recommendations have been prepared in the context of a comprehensive planning report to allow for maximum public discussion and provide a rational framework for change--for growth and preservation. The recommendations were drafted to meet the following objectives:

- Insuring that any new development is compatible with existing communities
- Insuring that adequate community facilities are provided with any new development
- Providing public access to and enjoyment of the waterfront
- Preserving ecologically valuable wetlands and creating new recreation space
- Retaining viable industry

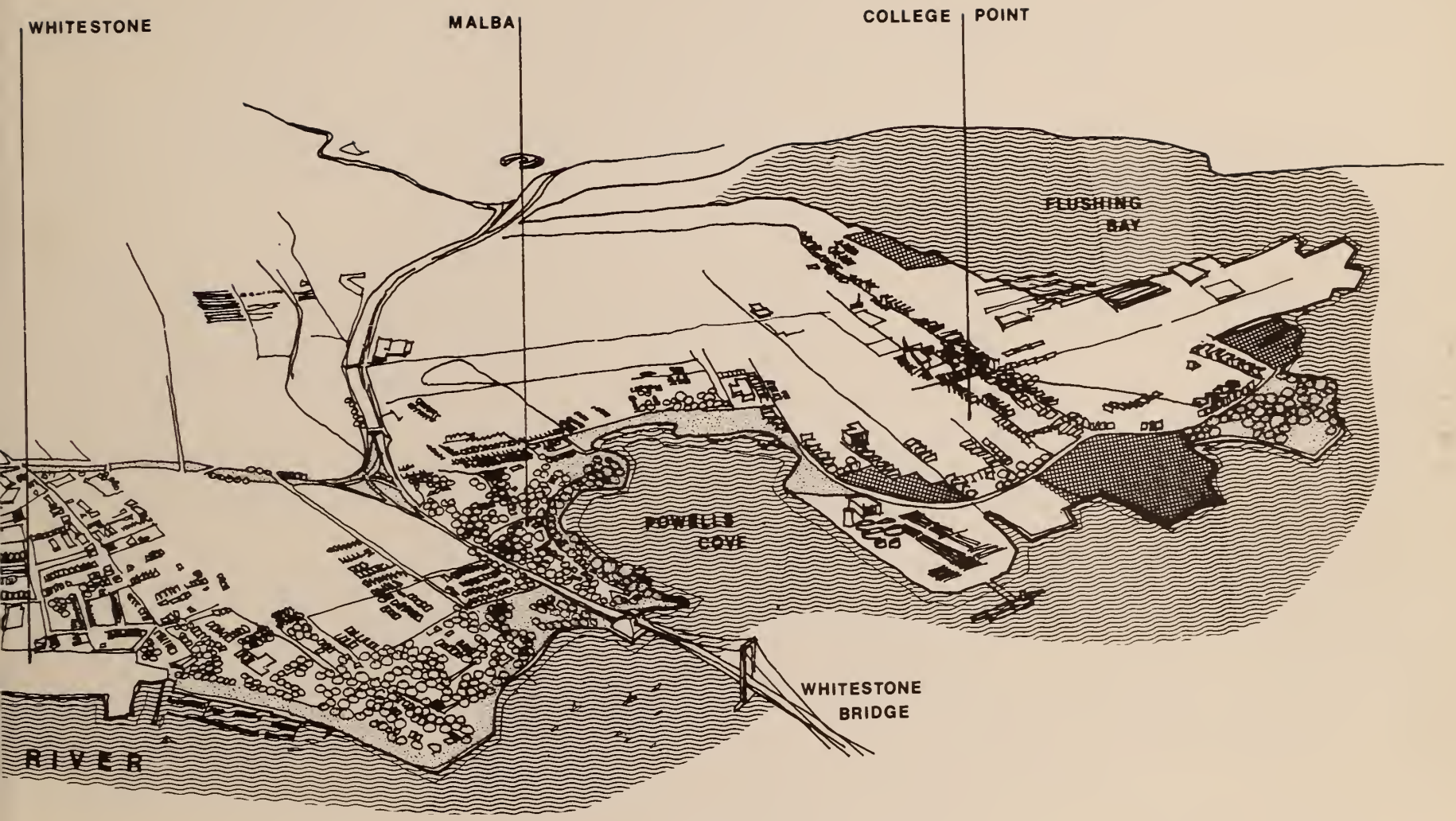
The recommendations are of four basic types: Land Use; Design Controls; Implementation Alternatives; and Infrastructure Improvements.

LAND USE

The land use recommendations fall into three categories: taking advantage of open space opportunities; reviewing zoning for waterfront sites that private developers have proposed for housing; examining non-waterfront as-of-right residential development areas.



COMMUNITIES ON THE NORTH SHORE


WHITESTONE
MALBA
COLLEGE POINT
FLUSHING BAY
POWELLS COVE
WHITESTONE BRIDGE
RIVER

Open Space

We propose that 122 acres (24 of which are City-owned) of open space be acquired and mapped by the City. This would include 26 acres to be mapped as an addition to Alley Park. Most of the area would be preserved as wetlands, while some would be used for parking. The 26 acres consist of three sites in Douglaston (O, P and Q on map page 8) which had been proposed for private residential development. We also recommend that the City preserve 44 acres at Powell's Cove in their natural state as wetlands (the City owns 24 acres and would acquire the remaining 20). Finally, the 52-acre parcel of surplus property at Creedmoor State Hospital should be acquired and used for horticultural and recreational purposes according to recommendations being prepared by community boards 11 and 13 and this agency in cooperation with the Parks, Recreation and Cultural Affairs Administration. An 8-acre parcel in city ownership adjacent to the Cross Island Parkway in Bay Terrace near the Towers at Water's Edge housing should be developed as a playground.

Zoning Review of Waterfront Sites

There are eleven sites on or adjacent to the waterfront that have been proposed by private developers for new housing. Of these, six with a total of 115 acres are currently zoned for manufacturing (sites B, E, F, G, J, M on map on page 8); two with 10 acres are currently zoned residential (site A, R4; site H, R3-2), two with 16 acres are zoned commercial (C3) with a residential equivalency of R3-2 (sites C and D); and the six-acre site K is zoned partly for manufacturing and partly residential.

Our analysis suggests that it is possible to accommodate new residential development on nine of these sites on an incremental basis over the next five to 10 years under specific planning guidelines and design controls.

We do not recommend housing for sites G or J.

Site G presently contains an active yacht club. The zoning is for moderately heavy (M2-1) manufacturing. The appropriate zone for the yacht club would be C3, a district designed for waterfront recreation and uses related to boating. (C3 also has a residential equivalency of R3-2.) While a change to C3 would technically allow housing, economic and policy considerations would make housing here extremely unlikely. The purpose of a zoning change should be to sustain the yacht club.

The 31-acre site J has active industrial uses that provide needed jobs and so should not be considered for new housing.

In order to allow new housing on five of the nine waterfront-oriented sites not needed for industry, it would be necessary to change the zoning of four manufacturing sites to residential, and to change the site that is partly manufacturing and partly residential to all residential. These changes would require public hearings before the Planning Commission and Board of Estimate. The four sites that are now zoned residential, or have a residential equivalency, could conceivably be developed as-of-right. However, there is a strong probability that all would require or seek a mapping or zoning action in connection with development. New development is either impossible or unlikely on any of these nine sites without further public review.

If it were determined to permit residential development on all nine sites after public review and approvals and after the imposition of appropriate design controls and guidelines, and if the basis for density were existing, prevalent residential zoning patterns, then the maximum allowable development for the nine sites would be approximately 7,300 units (depending on unit and room sizes--see Chapter IV, page 79). However, since zoning and mapping actions would be required for most--and probably all of the sites--development could only take place incrementally, rather than as a flash flood. The nature of the economy and the marketplace would place further restraints on the pace of development.

Non-waterfront As-of-right Development Areas

Three sites are shown on the map on page 8 which are not on, adjacent to or oriented toward the waterfront (sites L, N, R). Residential development could proceed as-of-right on these three sites.

At present, the construction of model homes has taken place on site L in the Clearview section of Whitestone. The developer proposes to build 54 two-family and four one-family homes surrounding a common open space. Applications for mapping changes and certain large-scale development provisions were being considered by the City. The proposed development has been approved by the local community board.

Site N in Bay Terrace had initially been proposed for some 1,200 units by the developer. Plans have now been scaled down to 600 units. The owners have said they will voluntarily file a restrictive covenant to reflect this and other conditions. No development is currently taking place.

Site R in Douglaston could be developed under the present zoning with a maximum of 700 units. Initial development is taking place on a portion of the site with

two-family homes. Applications for large-scale designation and mapping actions are pending before the Planning Commission.

Design controls have been applied in the course of reviewing applications for sites L and R and would be applied should other owners seek zoning or mapping actions.

DESIGN CONTROLS

The report recommends a series of design controls that relate new development to the waterfront and existing communities. Specifically it is recommended that:

- Land under water between the pierhead and bulkhead lines should not be included in calculating permitted density. If such land were included, it could result in excessively dense, bulky projects that would block the waterfront.

- Building height should be controlled so that low buildings (a maximum of 35 feet high) would be opposite existing communities, with higher buildings, up to a maximum of 12 stories, only permitted beyond the transitional zone in the interior of the site.

- A 50-foot wide shorefront margin, consisting of a 20-foot waterfront esplanade and a 30-foot landscaped buffer between the walkway and the development would be required for the full length of all new waterfront projects.

- Views of the waterfront would be protected by establishing visual corridors (generally extensions of existing upland streets) through new development sites on which no building would be allowed.

- These visual corridors could also contain physical links to the shorefront walkway--or where this is not appropriate, a different connecting path would be provided.

- Street trees would be required every 25 feet between the curb and property line.

- Commercial facilities should be carefully located within new developments away from residential streets. Only sites F and M would have commercial facilities that serve the larger neighborhood.

- At least one covered parking space per dwelling unit would be required, and a total of at least 1.25 spaces per unit would be mandated.

- Exterior designs should be varied, heights staggered, breaks in facades provided and outdoor planting areas included.

Views such as this in College Point would be protected by the establishment of visual corridors.

The general guidelines advocated by the Urban Design Council's Housing Quality Program emphasizing more useful and varied recreation space, better building security, neighborhood compatibility and improved apartments should be considered in reviewing applications for zoning changes and related actions.

IMPLEMENTATION

This is a comprehensive planning report and it provides the framework for considering the future of the North Shore. Public hearings will be held on this document by Community Boards 7 and 11. In addition to considering the basic recommendations, there are two implementation options which should be reviewed:

Incorporate the design recommendations into a special waterfront zoning district.

This would have the advantage of codifying the design guidelines. However, it would also have certain disadvantages. It could be seen as encouraging unwanted redevelopment of existing areas since the district's sweep would be broader than its objectives. It would cover all the waterfront sites; but, it would also cover areas which clearly should not be subjected to any redevelopment pressures. Since it would cover all the sites and communities at once, it could be seen as triggering wholesale and precipitous redevelopment

Use existing planning tools.

As discussed earlier, most--and probably all--of the sites where redevelopment could occur would require or want some public action. Those applications for zoning changes or mapping actions would be considered using this comprehensive planning report and the design guidelines as criteria. Development plans would be reviewed and agreements formalized by covenants running with the land (see model declaration, Appendix, page 99). This has the advantage of being comprehensive in sweep and approach, but incremental in application. Since it could be worked out on a site by site basis, specific and unique problems could be dealt with individually in the broader context of the North Shore and community needs. It has the disadvantage of seeming less absolute than the special zoning route--those waterfront sites now zoned to permit housing which neither needed nor wanted mapping or other zoning modifications could theoretically proceed as-of-right.

INFRASTRUCTURE IMPROVEMENTS

Transportation, sewer, recreation and health improvements are recommended as required by new development. These, and suggestions for regulating the amount and location of commercial development, are detailed in full in Chapter IV.

Chapter 1. The North Shore --- An Overview

The North Shore of Queens extends from the Flushing River eastward along the East River and Little Neck Bay to the City-Nassau County boundary. The Study Area includes the coastal zone and contiguous communities of College Point, Whitestone, Bay Terrace, Douglaston-Little Neck and Creedmoor. Although the "North Shore" does not appear as such on any maps, it is an entity to the people who live there.

Residential land is the largest single use category, accounting for 65 per cent of the total land area. The 12.65 square miles of the Study Area contain an average of 12,500 persons per square mile compared to 18,300 persons per square mile for the borough of Queens.

Public open space occupies 1,470 acres or about 18 per cent of the land area, making it the second largest land use category. Private open spaces represent more than 3 per cent of the total acreage. The commercial activities distributed throughout the Study Area occupy 170 acres or slightly more than 2 per cent of the total acreage, while manufacturing uses consume 8 per cent. Vacant land accounts for 3.7 per cent.

From 1960 to 1970, the North Shore grew more rapidly than Queens as a whole. In 1970 the North Shore's population of 158,000 was about 8 per cent of the population of Queens. In 1973 the estimated population of the Study Area was 165,000. Only two per cent of the residents were non-white, according to the 1970 figures. (Table A in the appendix contains population and housing data for each North Shore community.) There is a high incidence of home ownership, but both owner and rental occupancy patterns indicate less population turnover than Queens as a whole. North Shore families are also characterized by relatively fewer single-parent families with children than other areas of the City.

About one-half of the North Shore's population has a foreign-born parent or is foreign born. Its ethnic heritage is principally Russian, Italian, German, other Central European and Irish. From 1960 to 1970, large increases in the number of Italian-Americans tended to sustain parochial school enrollments.

NATURAL AREAS

While high schools are overcrowded, elementary and intermediate schools are underutilized. The birth rate and the number and proportion of children under five years of age are declining. Conversely the number of persons 65 years and over is increasing, although the proportion of elderly persons (10 per cent) is still low compared to Queens (12.4 per cent).

As a whole, the North Shore contains a larger proportion of professional, managerial technical, sales and clerical workers than either the total population of New York City or Queens. Only in College Point is there a fairly even split between the white collar force and blue collar or service workers. Nearly one-half of North Shore families had annual incomes of $15,000 or more in 1970, in contrast to 30 per cent for Queens as a whole. There is relatively little poverty in the area.

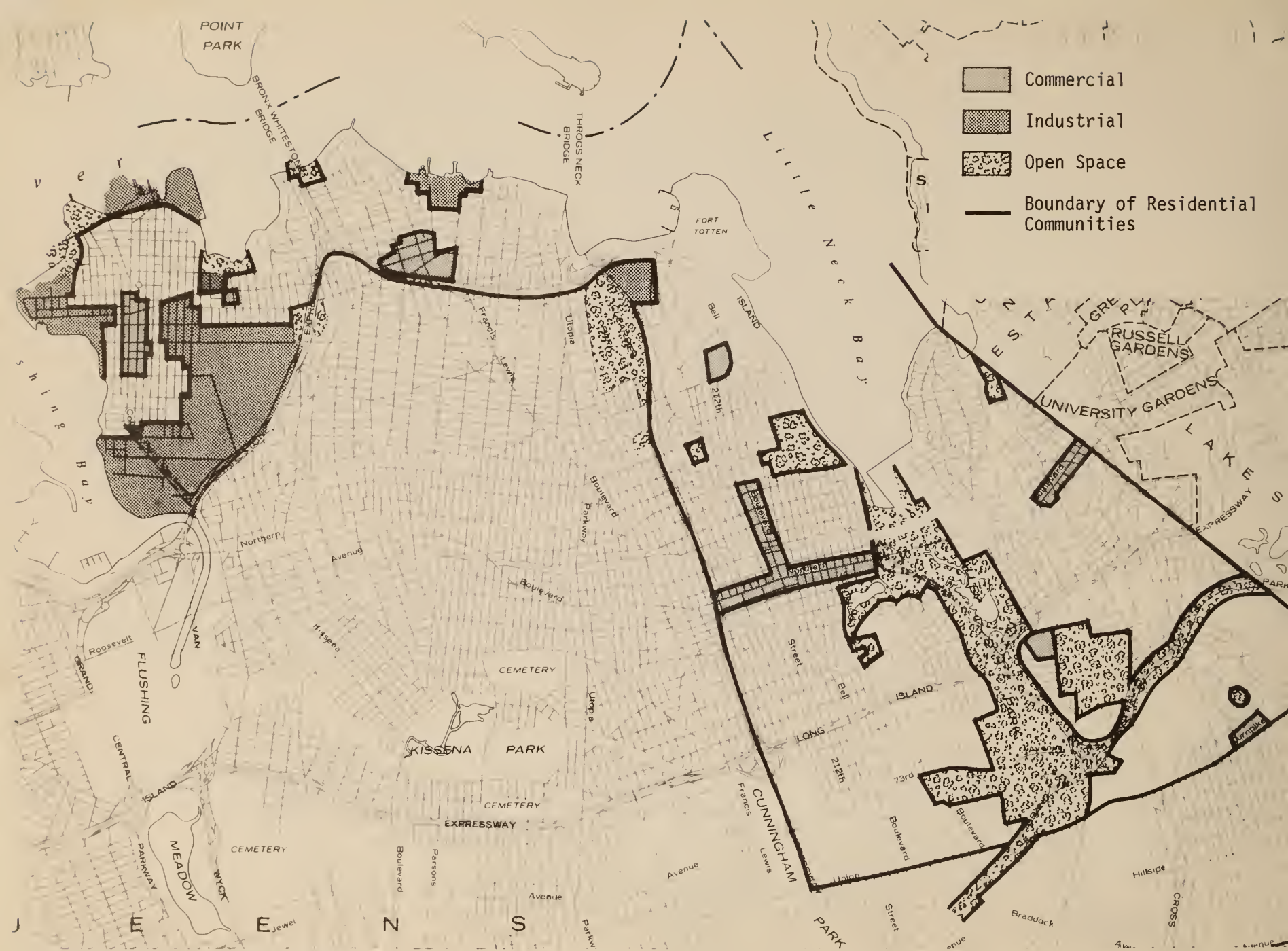
Although more than half of the housing units built during the 1960's were for rental occupancy, the majority of dwelling units is still owner-occupied. Housing values and rents are comparatively high, and the degree of both overcrowding and "sub-standard" housing (based on the criteria used by the U.S. Bureau of the Census) is miniscule. Between 1960 and 1970, increases in the number of housing units generally exceeded the population increase.

NATURAL AREAS

One of the major features of the Study Area is its natural areas. Within the North Shore Study Area are approximately 640 acres of natural coastal vegetation. For the most part, these areas are tidal lowlands within the rocky debris left by the retreating continental glacial ice sheet which achieved its southernmost advance in New York 15,000 years ago. The soil and rock materials brought by this glacier, and left after its retreat, created the hills and boulders of the northern half of Long Island.

Nearly 270 acres are natural wetlands adjacent to the sea. Natural upland areas comprise 370 acres. Some of these lands merge gradually with the sea, as evidenced by the extensive development of mud flats and marshes, as in Powell's Cove, Little Neck Bay and Udall's Cove. Wetlands are distinguished from uplands primarily by vegetation content. (The extent of coastal vegetation by type and community is summarized in Table G in the appendix.)

Wetlands are significant for a variety of reasons. They serve as a buffer for storm and tidal currents, filter and cleanse the water, help to perpetuate

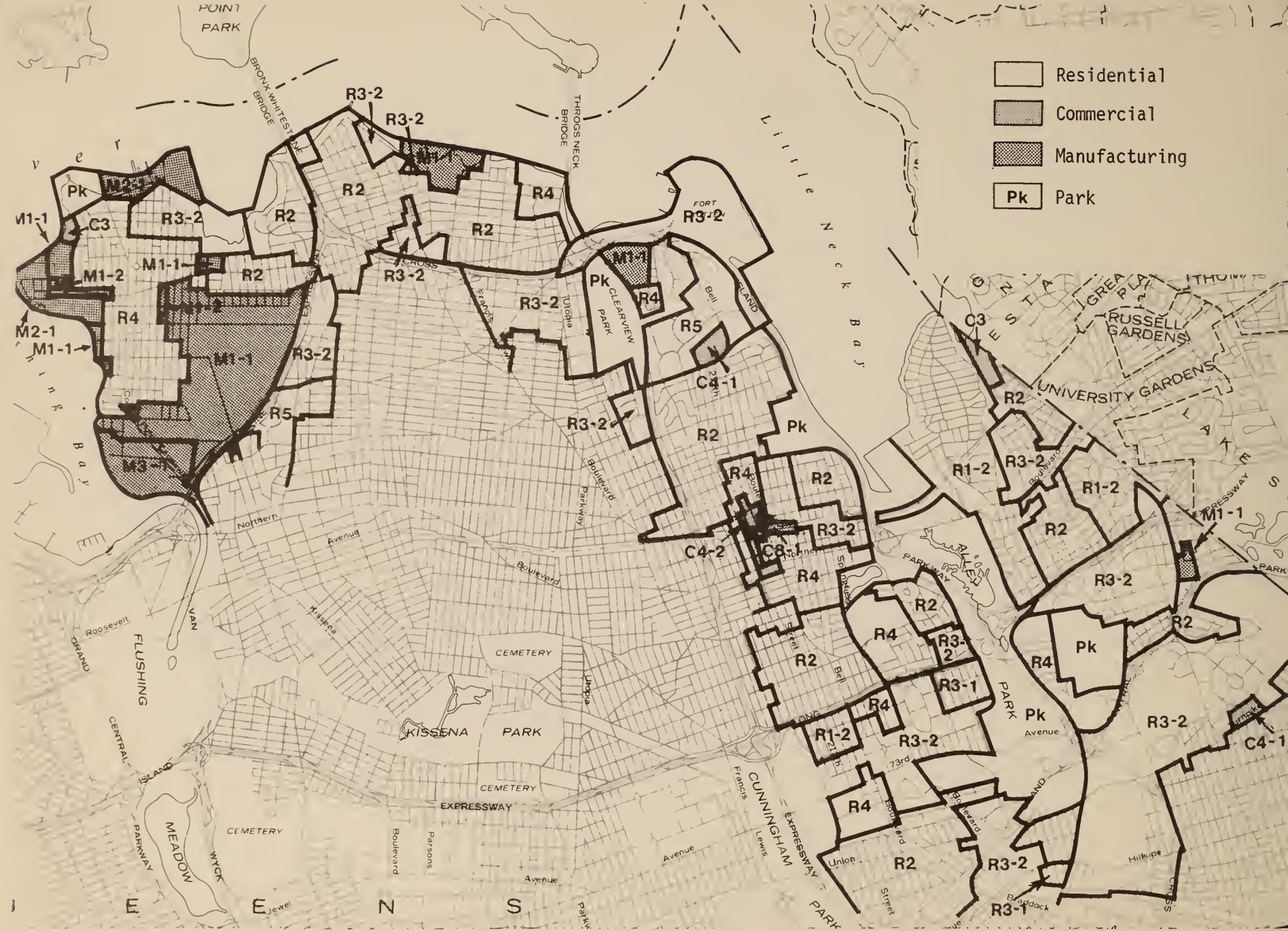

Commercial
Industrial
Open Space
Boundary of Residential Communities
POINT PARK
BRONX WHITESTONE BRIDGE
THROGS NECK BRIDGE
FORT TOTTEN
Little Neck Bay
Bell
ISLAND
Francis Lewis
Utopia
212th
Boulevard
Parkway
Northern
Avenue
Boulevard
Kissena
CEMETERY
KISSENA PARK
CEMETERY
EXPRESSWAY
CEMETERY
Roosevelt
GRAND
VAN
FLUSHING
CENTRAL
ISLAND
PARKWAY
MEADOW
WICK
Parsons
Boulevard
Avenue
Avenue
Jewel
Avenue
CUNNINGHAM
PARK
Francis
Lewis
Union
Street
Bell
ISLAND
LONG
212th
73rd
Boulevard
Boulevard
Braddock
Street
Hillside
Cross
Avenue
RUSSELL GARDENS
UNIVERSITY GARDENS
EXPRESSWAY
Airport
QUEENS
EXISTING LAND USE

marine and other wildlife and serve to retard land erosion. In addition, wetlands provide recreational opportunities for fishing, boating, wildlife observation, photography and biking. According to Dr. Andrew Greller, a biologist at Queens College, the natural areas in Northeast Queens are the last refuge in Queens County of certain extremely rare flora and fauna.

Wetlands and uplands typically adjoin estuaries which are semi-enclosed coastal bodies of water with a free connection to the open sea and within which seawater is mixed with freshwater from the adjacent drainage basins. In addition to, and often in spite of its natural functions, the New York City estuary serves many other purposes. It provides accessibility, an excellent semi-enclosed harbor and water for industrial cooling. Nearly 20 per cent of the estuarine areas is privately owned. The remainder is publicly owned land, of which 508 acres are designated as parkland.

All of the North Shore estuarine areas have problems that can exert a harmful influence on adjacent communities. The areas have been subjected to fill operations, industrial spillage, bulkheading and toxic runoff. Heavy industrialization has made natural vegetation virtually extinct along the coast of College Point. The Powell's Cove coastline has about five acres of tall cordgrass in a poor state of preservation. Abandoned cars and refrigerators are evident near Alley Pond Park. There are also signs of raw sewage leeching into the park during heavy rainfalls.

The side slopes of Udall's Cove ravine are eroding. This erosion eventually causes sediment to be carried out during high flows into Udall's Cove. If large volumes of sediment were washed into Udall's Cove, it would have an adverse effect on the wetlands there. The State Department of Environmental Conservation (D.E.C.) has determined that preservation of the ravine is essential for protection of Udall's Cove. No development is allowed except as may be permitted under the Tidal Wetlands Act of 1973. This Act currently prohibits development or alteration of land within 300 feet of the shore without a permit from the State D.E.C. to allow for the preparation of an inventory and the boundaries of tidal wetlands throughout the State.



EXISTING ZONING

Chapter 2. Community Profiles

College Point

COLLEGE POINT

College Point's population increased 16.4 per cent from 18,250 in 1960 to 21,250 in 1970. It is ethnically diverse, with nearly half its residents of foreign ancestry--mainly German, Italian, Central European and Irish. The 1960 to 1970 period brought a 17.5 per cent increase in residents of German stock and a 45.9 per cent increase in residents of Italian origin though no one ethnic group predominates.

College Point is the oldest of the North Shore communities having experienced significant industrial development and settlement in the mid-19th century. It is also relatively stable. More than two-thirds of its housing was built before 1940. One out of every five households has lived in its home for twenty years or more.

On average, College Point has more elderly persons, younger families and more extended families than other North Shore communities. Average household size in the area dropped from 3.29 in 1960 to 3.16 in 1970. The decline reflects the general tendency of the young and of unattached elderly persons to seek separate living arrangements.

College Point is characterized by a high percentage of women in the labor force (35 per cent) and an even split between those in blue collar jobs and those in the white collar employment sector. The median family income of $11,623 in 1970 was about $4,000 less than other North Shore communities but slightly above the average for the borough. There were some 300 households with income below the Federally established poverty level.

Nearly half the labor force drives to work--mainly to jobs within the borough--and 13 per cent walk to work. There is less automobile ownership in College Point compared to the North Shore as a whole. While 14 per cent of the households own two or more automobiles, 25 per cent indicate no auto ownership at all.

Vacant Land

Industrial Areas Requiring Treatment

Areas Containing Substandard Structures

Noise Exposure Forecast Zone Boundary

ISSUES AND CONSTRAINTS

Housing

College Point

In 1970 there were 6,707 housing units in College Point, an increase of 16.9 per cent since 1960. Approximately 60 per cent of the units were owner-occupied, the same proportion generally as the North Shore, but higher than that of the borough (41 per cent). An additional 160 housing units were built and occupied from 1970 to 1973. More than 62 per cent of the housing constructed between 1960 and 1970 was built for owner-occupancy, reflecting the predominant tenure of the existing stock. On the North Shore, however, most new construction (56 per cent) built during the decade was for rental units.

The overwhelming majority of units in College Point is in single- and two-family houses (87 per cent), the highest proportion of any community on the North Shore. The median value of a single-family house in College Point in the 1970 census was reported to be $26,995, compared to $32,162 in Community Planning District 7, $25,800 in the borough, and $34,113 on the North Shore. There is a wide range, however, in the 1970 median values among the six census tracts that comprise College Point--from $19,800 in the older core to $38,700 in the Malba section.

The lower values mainly reflect the age of the existing housing, more than two-thirds of it built before World War II. More than 75 per cent of the rental units were built prior to 1940. By contrast, the majority of housing units on the North Shore were constructed since 1950.

Most rental units are found in two-family houses and were unaffected, therefore, by the rent control program in force in 1970. The median gross rent paid then was $123 compared to $171 on the North Shore. Rents have risen sharply, though, since 1970, reportedly reaching well above $250 for older apartments.

College Point

Physical Resources and Deficiencies

Like other communities on the Northeast peninsula that trace their founding back either to the 17th or 18th centuries, College Point has strong roots in the past. It contains the largest proportion of older buildings and institutions on the North Shore. The Poppenhusen Institute, for example, was built in the 19th century. Many wood frame homes and stores built between 1900 and 1920 are prime examples of American Victoriana and display the skilled carpentry that characterized architecture in the early 20th century. Among other "survivors" of the past are several older industrial plants with gracefully arched windows that once were part of the 19th century American Rubber Company.

College Point

College Point has a sense of its own history. Descendants of German workers who emigrated with Conrad Poppenhusen in the 1820's and 1830's make up much of the town's present population. It is not uncommon to hear German-named residents proudly announce that the fifth or sixth generations of their families intend to remain in College Point.

The town's historic spine is College Point Boulevard. It leads across mudflats to the center of town and ends at Lax Avenue in a view across the East River to the Bronx. Between 12th and 22d Avenues, College Point Boulevard is dotted by shops, offices, recreational and industrial facilities that residents can reach on foot. The small one- and three-story buildings help to define a street space within which many neighborhood activities are concentrated. Neighborhood residents meet by chance and stop to talk or gossip; and children from nearby schools, as well as those intent merely on shopping, are familiar sights. It is a true town center.

The center is bordered on the north by Poppenhusen Memorial Park and by two 3-1/2-story red brick apartment buildings on the south. Because they are higher than the buildings along College Point Boulevard, these structures act as an entryway into the town.

Historically, industries have occupied more than one-third of College Point's shorefront. These industries received raw materials (and, in past times, shipped finished products) by boat. Although dependence on water-borne shipping has diminished, industries continue to occupy much shorefront property.

The Study identified many industrial parcels within residential zones in College Point that were not exerting harmful effects on the surrounding neighborhood. Some other active industrial areas are less compatible with the surrounding community in the sense that they restrict access to the shore, and generate noise, air pollution or undesirable vehicular traffic.

The remaining portion of College Point's shorefront is vacant land or recreational space. The 28-acre McNeil Park affords the community some access to the shoreline. The condition of most of the vacant shorefront, however, discourages public use. Construction debris, car hulks and tires and other trash scar portions of Powell's Cove and the river front.

The southern and most of the eastern edges of College Point rim the College Point Industrial Park. Under the direction of the City's Public Development Corporation, this industrial area has more than 300 acres available for development. The cooperative effort by the public and private sectors to foster industrial growth here can help keep needed blue collar jobs in the City. Fifty acres have already developed, and specific commitments or proposals have been received for development of an additional 110 acres. The comprehensive plan for the industrial park includes landscaped areas and public recreation sites to provide an attractive buffer zone between neighborhood and factory development.

The most characteristic housing types in College Point are detached, semi-detached and row house units. Deep front setbacks, side yards and large backyards are heavily planted with trees and shrubbery. Many smaller undeveloped parcels, from 1,000 to 2,500 square feet in size, contain dense flora native to the community. Under current zoning regulations it is difficult to develop these small parcels.

The relatively small proportion of apartments in College Point are concentrated above stores on College Point Boulevard or in detached structures close to the town center.

Situated at the westernmost part of the Study Area near LaGuardia Airport, College Point is sometimes subjected to high aircraft noise. The Federal Aviation Administration has developed a measure of perceived noise at ground level called the Noise Exposure Forecast (N.E.F.). This forecast takes into account the type of aircraft, flight patterns, wind direction and other atmospheric conditions that affect sound transmission.

An N.E.F. of between 30 and 40 means that noise-reducing construction standards should be required for new housing in that area. An N.E.F. of 40 or above is not considered suitable for residential construction. The planning issues map on page 24 shows that half of College Point was in a 30+ N.E.F. zone in 1972. The Federal Aviation Administration has projected, however, that by 1980 there will be a significant reduction of the N.E.F. due primarily to improved aircraft engines.

Whitestone Park

WHITESTONE (Beechhurst)

Between 1960 and 1970, the population of Whitestone increased only 5.3 per cent compared to 15.1 per cent for the North Shore, 9.8 per cent for Queens as a whole and 1.4 per cent for New York City. Between 1970 and 1973 the population of Whitestone was estimated to have increased by less than half of one percent to 15,949.

Like College Point, Whitestone's population is almost entirely white with many different ethnic strands. No one ethnic group is manifestly predominant. Residents of Italian birth or descent comprise the largest proportion of the foreign stock population (11.7 per cent) followed by Russians (7 per cent).

The great majority (nearly 80 per cent) of its households are husband-wife families. Like the North Shore generally, few households in Whitestone (12 per cent) include persons unrelated to other members of the household. The average household size in 1970 was 3.17 persons, a decrease of more than 6 per cent since 1960, reflecting the generally declining birth rate. Nevertheless, average household size in Whitestone, as in other North Shore communities, still exceeded the average for the City and Queens.

Whitestone's labor force is preponderantly white collar. More than 71 per cent of its employed residents in 1970 worked in professional, managerial, technical, sales and clerical occupations.

Whitestone's median family income of $15,085 was above the North Shore average of $14,112. Within the four census tracts examined, however, median family income ranged from $11,658 to $17,467. There is relatively little poverty in the community, with only 3.4 per cent of its families having incomes below the Federally established level in 1970.

Three out of every ten Whitestone residents work in Manhattan, a proportion considerably below the North Shore average. A higher percentage of Whitestone residents (37.5 per cent) work in Queens. For 59 per cent of them, the journey to work is accomplished by car. This pattern suggests a high incidence of automobile ownership and, in fact, 32 per cent of all households own two or more automobiles.

Whitestone

Housing

In 1970, there were 5,189 housing units in Whitestone, the majority of them in detached single-family homes. The housing stock is sound. Only 22 units had been added by 1973. According to 1970 census data, the median value of a single-family home in 1970 was $33,667 in Whitestone compared to $25,800 in Queens. Contrary to the trend elsewhere on the North Shore and in Queens, ownership rather than rental occupancy increased in Whitestone.

Forty-two per cent of Whitestone's housing stock is occupied by renters. The median gross rent in 1970 was $210 monthly, considerably above the $171 North Shore average. In 1970, Whitestone also had 161 condominium or cooperative housing units.

Except for College Point, Whitestone's housing stock is older than that of other North Shore communities. About one-third of the dwelling units were built before 1940. A majority of the rental units were constructed during the 1950's.

Physical Resources and Deficiencies

Development of the Beechhurst area of Whitestone, north of the Cross Island Parkway and east of 154th Street, largely took place after 1920. Single-family detached homes dominate the area which is unique among North Shore communities in that a number of these homes front directly on the East River. Much of the shoreline, therefore, is not publicly accessible. As in College Point, there are large yards with shrubbery and mature trees. In the vicinity of 149th Street and 3rd Avenue, natural growth also enriches smaller parcels and accentuates Whitestone's distinctive small-town flavor.

The low-density character and abundant greenery are dominant characteristics of the area. There is also a high-density cluster consisting of Cryder House and LeHavre Apartments in Beechhurst's northeastern corner.

The town center is located in the vicinity of 150th, 151st and Clintonville Streets south of 12th Avenue. The shops and recreational spaces that line it have grown to meet the needs of an increasing population.

PHYSICAL RESOURCES

Le Havre
Apartments

The center is located near important collector streets--14th Avenue and the Cross Island Parkway service drive--and many of its commercial activities take place in remodeled Victorian houses. The town center contains schools and several churches and the mixture of these uses, with the commercial and recreational components, adds to its vitality.

The "boundary" between the Whitestone and Beechhurst neighborhoods is usually thought of as 154th Street. Although this street lacks the hustle and bustle of College Point Boulevard, it serves as a clear pedestrian pathway from the Whitestone Shopping Center, and ends in a view across the East River to the Bronx.

Whitestone touches the water, but the shoreline is publicly accessible only at Francis Lewis Park. A private beach located at 150th Street and Powell's Cove Boulevard, however, is open to Whitestone residents.

In addition to residential and recreational uses, industrial activities (which historically preceded residential development) continue to occupy about one-fourth of the shoreline's length. In 1973, the Metropolitan Asphalt Company rescheduled operations of its large and noisy trucks to meet the objections of residents. Intrusive aspects of other manufacturing activities in this area should similarly be curtailed.

Near the foot of 154th Street is a piece of largely vacant shorefront land. Fenced in and zoned for industrial development, it does not appear to have the attributes of a wetland.

There is a dearth of public open space in Whitestone, the only major resource being the 17-acre Francis Lewis Park. The only other publicly accessible resource within comfortable walking distance of residents living north of the Cross Island Parkway is a 1.5-acre school playground adjacent to P.S. 193.

BAY TERRACE

Bay Terrace, the northern portion of the larger Bayside community, has experienced the most dramatic growth of any North Shore area. Its 1960 population of 3,887 soared to 10,691 in 1970--an increase of 175 per cent. In 1973, the population was estimated to have increased to 13,107 persons with the completion of an additional 792 housing units.

New rental housing built in the late sixties accounted for most of the increase. Many of the initial occupants of these multi-family buildings were persons who moved to Queens from other parts of the City.

The population is overwhelmingly white, and more than 50 per cent of the residents claim foreign descent or birth. The major nationality groups are Russian, Polish, Austrian and Italian.

Bay Terrace

Despite a five-fold increase in the number of persons 65 and older since 1960, Bay Terrace had a smaller proportion of elderly persons in 1970 (5 per cent) than all other North Shore communities. By contrast, it had proportionately more residents between 25 and 54, as well as more children under five.

Husband-wife families make up 85 per cent of all households, well above the average for the North Shore of Queens. Although average household size has dropped in all North Shore communities, Bay Terrace's 3.05 remains the second highest within the Study Area. It was 3.63 in 1960.

More than 90 per cent of Bay Terrace's school age population attended a public school in 1970; 8.7 per cent went to a parochial or private school. On the high school level, 91.6 per cent attended a public school. Compared to other North Shore communities, and to Queens, Bay Terrace's parochial and private school enrollments are very low.

Nearly 85 per cent of Bay Terrace's workers hold white collar jobs. The proportion surpasses all other North Shore communities, and reflects the fact that Bay Terrace also has the highest percentage of high school graduates among persons 25 and over. Data on median family income demonstrate a further linkage, Bay Terrace's $16,862 in 1970 leading all other communities in the Study Area.

A large proportion of Bay Terrace residents (37.1 per cent) work in Manhattan. Twenty-nine per cent work in Queens, and smaller proportions work in Nassau County (9.2 per cent) and Brooklyn (4.4 per cent). The automobile is the preferred mode of transportation, a fact reflected by the 1,350 households owning two or more automobiles.

Housing

In 1970, there were 3,702 housing units in Bay Terrace, and more than 53 per cent of them were renter-occupied. Of the owner-occupied units, most are in cooperatives or condominiums.

According to 1970 Census data, the median value of a single-family house in Bay Terrace exceeded $50,000, and the median rent was $270 monthly--both figures far above levels for the North Shore and Queens.

Prior to 1950, there were 400 garden apartments in Bay Terrace. These apartments are within the older two-story Bay Terrace Apartments complex completed between 1935 and 1949.

Between 1950 and 1970, 94 buildings containing 2,437 units were constructed in Bay Terrace. Since 1970, new construction has accounted for almost 800 units, about half of these in multiple dwellings of four units or more.

Physical Resources

With the exception of the vacated General Telephone and Electronics property and the bustling Bay Terrace Shopping Center, Bay Terrace is wholly residential. Net residential densities vary from 65 to 70 dwelling units per acre near the Towers at Water's Edge to 20 dwelling units per acre near 208th and 209th Streets. The addition of 1,200 units in the partially completed Village Mall and 400 in the Belshire Manor development would create an average net density of about 30 dwelling units per acre in Bay Terrace.

Bay Terrace

Expressways serve to define the community on three sides--Clearview Expressway on the west and Cross Island Parkway on the north and east. These major roads--200 and 250 feet wide--make strong borders.

On the south, Bay Terrace is bounded by 26th-24th Avenues. From the Clearview Expressway to Bell Boulevard, this street touches an area made up mainly of single-family detached homes. To the north, it touches the still uncompleted 21-story Village Mall development and the Bay Terrace Shopping Center. One of two westerly vehicular approaches into Bay Terrace, 26th Avenue bridges the Clearview Expressway. (The other approach is Willets Point Boulevard at the community's northern edge.)

Bay Terrace

The town center is located at the intersection of the community's most heavily travelled streets--Bell Boulevard and 26th Avenue. Bell Boulevard is a visual spine for all of Bay Terrace. The town center has a number of qualities and activities that are peculiar to Bay Terrace, not the least of which is concentration of high-density developments.

The Bay Terrace Shopping Center has 33 stores, a bowling alley and movie theatre, and contains about 150,000 square feet of commercial floor space on 12 acres of land. The availability of about 900 parking spaces attracts shoppers with cars. The shopping center's diversity and strongly identifiable character is enhanced by its proximity to two medical clinics, a public school and an athletic club.

Nearly all programmed open space within Bay Terrace is privately owned and closely associated with adjacent residential developments. Open space areas within such developments as Belle Bay Apartments, for example, are accessible to only a limited number of Bay Terrace residents.

Although Little Bay Park and the small strip adjacent to Little Neck Bay are a short walk from any part of Bay Terrace, the Cross Island Parkway hinders pedestrian access to each of these shorefront resources.

DOUGLASTON-LITTLE NECK

Douglaston

The Douglaston-Little Neck area includes the communities of Douglaston Manor, Douglaston and Sagamore-Deepdale. Its population increased 6.3 per cent from 25,719 in 1960 to 27,348 persons in 1970. Only Whitestone grew at a slower pace. Douglaston-Little Neck is, like its North Shore neighbors, largely white. In its mix of nationality groups, it is the least varied of the Study Area's communities.

It is a stable place. Of the other North Shore communities only College Point had less population turnover in the years between 1965 and 1970. Between 1960 and 1970, its elderly residents increased in number and its proportion of young children declined.

Four out of every five households in Douglaston-Little Neck are husband-wife families. In 1970, average household size in the community was the second lowest in the Study Area. In 1960, it had been the highest. Although the popular image would have it that Douglaston-Little Neck residents monopolize the executive suites and ride to their corporate command posts in air conditioned limousines, nearly 23 per cent of them were engaged in blue collar activities in 1970--a much higher proportion than in Bay Terrace, for example. Douglaston-

Dougleston

Little Neck was also runner-up to Bay Terrace in having the highest median family income, the highest level of educational attainment, and the lowest incidence of poverty.

The years between 1960 and 1970 generated 1,457 new housing units--an increase of a little more than 20 per cent. Virtually all of these units were multi-family housing. The vast majority of units are owner-occupied, with condominiums and co-ops comprising roughly one-fourth of them. One-third of the households owns two or more automobiles, with 61 per cent of the labor force journeying to work by car.

Physical Resources

Douglaston Manor is a hilly community surrounded by Little Neck Bay and Udall's Cove. It is a community of large single-family homes built in the 1920's and 1930's. Its winding three-lane streets are lined with old, large trees.

In its modern incarnation, the whole neighborhood seems to be faithful to the spirit of the 19th century farm and manor houses that once stood there. A variety of architectural styles from Victorian to Renaissance have been applied to 2-1/2-story houses on heavily landscaped and irregularly shaped lots.

There are also several split-level homes near Douglas Road, west of Udall's Cove, three low-rise apartment buildings (six and seven stories) on Douglaston Parkway near Northern Boulevard and new single-family detached houses near 234th Street and Alley Park.

Unlike other North Shore communities, Douglaston Manor is more a residential enclave than a town. The small "town center" near Douglaston Parkway and 41st Avenue has less than a dozen stores selling convenience goods, an elementary school and a Long Island Railroad station. The small scale of this town center adds to the country flavor of Douglaston Manor.

The entire shoreline of this neighborhood is green space and easily accessible to the public, an oddity on the North Shore.

On the surface, the presence of 26 acres of privately owned vacant parcels west of 234th Street near Northern Boulevatd would seem to offer a potential for housing development. This land is now, however, a natural and swampy extension of Alley Park. The Study contemplates the addition of these vacant tracts to Alley Park because they are part of the estuary system and should be maintained as breeding grounds for maritime life and migratory birds. The Alley-Douglaston area has more vegetated land adjacent to the coast than all other areas of Northeast Queens (from Flushing Bay to Fort Totten) combined.

Of all North Shore communities, Douglaston Manor is the most homogeneous in its building types, and the addition of multi-family structures would represent a greater visual intrusion than anywhere else in the Study Area. Moreover, the location and configuration of vacant land parcels are such that they preclude adequate buffer strips to cushion the impact of higher-density buildings.

Sagamore-Deepdale was the only other Douglaston-Little Neck community surveyed for possible new residential development. The Sagamore-Deepdale Study Group, a federation of local civic organizations, has completed its own comprehensive neighborhood survey which will be used in developing any supplemental recommendations for residential development at Site R (Douglaston Parkway and 68th-70th Avenues).

CREEDMOOR

Garden Apartments
Creedmoor

On November 17, 1972, the State Department of Mental Health asked the City Planning Commission to take "...primary responsibility for land-use planning of a 52-acre parcel east of Commonwealth Boulevard..." This parcel was one of seven sites (totalling approximately 114 acres) of the Creedmoor State Hospital property to be considered for surplus designation.

The Planning Commission's examination of the parcel took place within the context of the North Shore Study.

In 1970, Creedmoor had a population of more than 36,000 persons, 85 per cent of whom were white, living in 11,121 housing units. Median household income ranged from $11,870 to $15,740 in the six census tracts comprising the community. Slightly more than 2 per cent of Creedmoor's families had incomes below the poverty line in 1970 compared with 2.9 per cent in Community Planning District 13 and 5.5 per cent in Queens as a whole.

Physical Resources

Before 1870, the 314 acres that were later to become Creedmoor State Hospital were a farm worked by the Creed family. In the 1890's the land was deeded back to New York State, and the Creedmoor Division of Brooklyn State Hospital was completed in 1912. By 1935, the expanded cluster of 70 buildings was known as Creedmoor State Hospital or just Creedmoor.

The community is bordered by two parkways on the north and west (Grand Central Parkway and Cross Island Parkway) and by the New York City-Nassau County line on the south and east. The present Creedmoor state parcel, recommended for horticultural and recreational activities,is no more than a 20 to 30 minute walk or a two- to three-minute drive for community residents.

The parkways bordering Creedmoor are 400 feet wide, including their landscaped shoulders. Except at certain locations, they impede through vehicular and pedestrian circulation.

Union Turnpike borders the local neighborhood on the south. The Turnpike is a major arterial, and is also the neighborhood shopping spine. Pedestrains can cross the wide street easily only at intersections with traffic lights.

The community's town center straddles the Turnpike between 252d and 263d Streets. The major pedestrian path of the local neighborhood is along Little Neck Parkway. And the Creedmoor parcel under consideration for recreational use fronts on the pedestrian route. Among the open-space ideas advanced have been suggestions for a tree nursery, agricultural laboratory and experimental station, centers for youth and the elderly and additional playgrounds for the New York State Children's Psychiatric Hospital.

On April 2, 1974, pursuant to recommendations of Community Boards 11 and 13, and to implement planning proposals of the City Planning Commission, a Bill (#10264) was introduced in the State Legislature. The Bill authorizes and empowers the New York State Commissioner of General Services to sell and convey the surplus Creedmoor parcel to New York City "...for use as a tree farm...or such compatible use as the City Planning Commission shall decide..." This Bill became law June 10, 1974. The Commissioner of General Services is mandated not to convey the parcel unless application is made within one year after the effective date of the Act. Community Boards 11 and 13 and the City Planning Commission are advancing procedures necessary to complete the application for conveyance by June 10, 1975.

Open Space

There are only 5.4 acres of publicly accessible open space in the local neighborhood, or less than half an acre per 1,000 persons. Within the larger community, the proportion is even less--a total of 11.84 acres or .34 acres per 1,000 population. By contrast, Community Planning District 13 has 2.53 acres per 1,000 population.

Other open spaces in or adjacent to the Creedmoor neighborhood are either regional resources, or privately owned. The largest resource is Alley Park, but this 623-acre area is about two miles from the farthest extremity of the local Creedmoor neighborhood and is not within comfortable walking distance.

The 126-acre former Glen Oaks golf course is located in the northeast corner of the local neighborhood and is being developed for luxury housing with a golf course, indoor health club, country and tennis club, ice-skating rink, and swimming pool. According to the developer, all facilities will be for project residents only.

The historic Creed farmhouse would be restored.

Chapter 3. Basic Services and Facilities

I. TRANSPORTATION

Travel Arteries

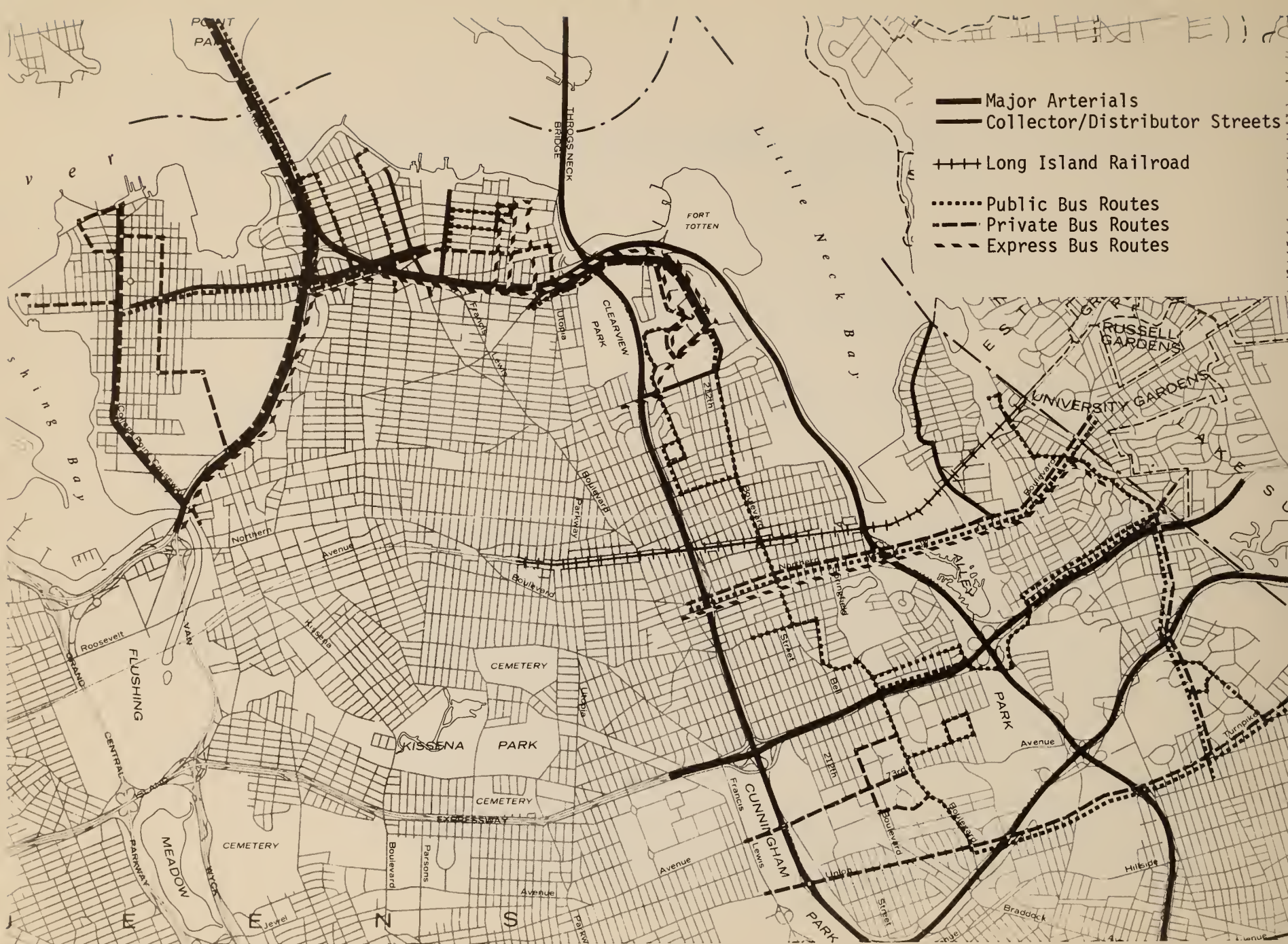
A survey of the travel habits and preferences of North Shore residents conducted by the Transportation Section of the Department of City Planning yielded the following information:

- On the average, there are 1.5 cars per household. The percentage is slightly higher in single-family houses and slightly lower in garden apartments. Large multi-family developments (with fifty or more apartments) also average 1.5 cars per unit. Less than 3 per cent of the households in the Study Area have no car.

- Residents of large apartment buildings make approximately four trips per day, 35 per cent of them work trips. Single-family houses reported 10 per cent more trips per unit.

- About 70 per cent of apartment dwellers use private transportation (mostly cars) as their first choice for travelling to work, compared to about 55 per cent for those in lower-density housing. This probably reflects the fact that about half of all work trips originating in single-family houses have destinations within Queens, compared to about one-fourth of those from multiple dwellings.

- Manhattan is the final destination of approximately 50 per cent of work trips originating from units in all housing types, except single-family houses (35 per cent).



EXISTING VEHICULAR AND TRANSIT ROUTES

Existing Public Transportation Facilities

The bus system in Northeast Queens is operated largely by the New York City Transit Authority, but three routes are operated privately. The majority of routes focus on Downtown Flushing which is the terminus of the IRT Line, the only subway serving the Study Area. The heavy utilization of this subway during peak hours discourages additional ridership. The Long Island Railroad Port Washington branch offers service to area residents from Downtown Flushing and from five other stations in or near the Study Area. A drawback to greater use of the L.I.R.R. is that there is only one station in Manhattan (Pennsylvania Station). One must transfer there to get to East Side destinations. Another problem in using the L.I.R.R. is the fact that local bus and railroad schedules are not well coordinated.

Express bus service to and from Manhattan exists along two routes in Northeast Queens--the QM-2 services Bayside and Whitestone and the QM-3 services Douglaston and Sagamore-Deepdale. Both routes connect to Midtown Manhattan. More than half of the Manhattan-bound work trips are destined for the midtown area between 34th and 59th Streets.

Public Transportation Survey

A study group in the Transportation Section of the Department of City Planning postulated nine Manhattan-bound public transportation alternatives:

1. Enlarge existing express bus service
2. Express buses originating at potential large-scale development sites
3. Express bus to Astoria BMT Line
4. Express bus to Astoria BMT Line with buses originating at potential sites
5. Express bus to proposed "super express" subway (at Queens Boulevard)
6. Express bus to proposed "super express" subway with buses originating at potential sites
7. Long Island Railroad
8. Water-borne transportation
9. Express bus to Flushing IRT Line

Residents and express bus users were polled as to their general travel preferences and a rating system was devised. The system evaluates these alternatives in terms of such consumer preferences as round trip cost; need to transfer; assurance of a seat; air conditioning; travel time; comfort of waiting areas and accessibility. Environmental impact was added to the rating scheme to penalize noise-polluting or energy-inefficient modes (e.g. hovercraft). Each transit alternative was then rated hypothetically at potential development sites in each of the four communities. At every such site the best alternative is express bus service originating on-site and going directly to Manhattan. An on-site bus is a short walk from the dwelling unit, it takes residents to their jobs, there is a good chance of a seat, and it is air-conditioned in the summer. While the fare is high, the user incurs no parking or gasoline expenses.

One problem in implementing this alternative is the current policy prohibiting new franchises for express bus routes entering Manhattan. In the longer run, the need to reduce congestion and pollution dictates finding a more efficient means of distributing express buses in Manhattan. Buses, however, can presently be added to existing routes. Under current policy, the implementation of an on-site express route depends therefore on whether such routes are considered to be new or extensions of the existing QM-2 and QM-3 routes.

On-site express bus service can be made a more attractive alternative if comfortable pick-up and terminal points are limited in number and situated at both ends to increase convenience and cut time. Travel time can be reduced by extension of an exclusive bus lane on the Long Island Expressway and by other preferential traffic techniques. Sixty buses, each carrying 50 passengers, can transport more people in a lane of traffic in an hour than 2,000 cars, each carrying their average load of 1.3 persons. The increased use of express buses could do much to alleviate congestion on limited access routes from Northeast Queens to Manhattan.

Highway and Streets: An Overview

The highway and street grid system in this part of Queens is, in most respects, typical of suburban residential street systems. The bulk of intersections is either uncontrolled or, at most, controlled by a stop sign. Traffic volumes are low on these local streets. Congestion exists primarily on the parkways and expressway system and along Northern Boulevard.

Measured in terms of overall route coverage, no part of the Study Area is more than 1-1/2 miles from an expressway or parkway interchange. The major limited access facilities are: the Long Island Expressway, the Clearview Expressway, the Whitestone Expressway, the Van Wyck Expressway and the Cross Island Parkway (which allows only passenger cars). Most are congested during peak periods by east-west traffic, coming primarily from Nassau and Suffolk counties, headed for Manhattan. Continued growth in these eastern counties will continue to congest the freeway system during peak periods, even if no population growth in Northeast Queens takes place.

Local Street Operations

Because of their proximity to potential development sites, the local streets in each North Shore community merit close, detailed attention.

There are two important technical concerns that have to be considered: the clarity of the local transportation network and capacity in relation to actual use of collector streets.

Local network clarity simply refers to how well the hierarchy of thoroughfares is working. The hierarchy of streets includes "major collectors" (e.g., major arteries and interneighborhood streets) and "local collectors" that pick up traffic from local residential streets and funnel them elsewhere. (Local residential streets are primarily for the residential areas served and often are the major areas for parking automobiles.)

COLLEGE POINT

The roads that provide access into College Point are 14th Avenue, 20th Avenue, Linden Place and College Point Boulevard. Under present conditions, traffic entering and leaving the community through these collector streets would be likely to use the local residential streets for east-west and north-south connections. In the absence of a "ring" road, traffic from existing and new waterfront development would travel through residential streets.

Collector streets in College Point present the following capacity problems:

- 122d Street (College Point Boulevard) has only one moving lane of traffic in each direction. South of 14th Avenue, this condition becomes a notable deficiency. The street there, with a right-of-way comparable to local residential streets, is unable to meet excessive traffic demands generated by local residential streets. Truck operations necessary for serving shops and stores on College Point Boulevard compound the problem.

- The irregular width of 127th Street forces excessive traffic onto 14th Avenue which is itself deficient. Specifically, 127th Street narrows to 25 feet in width south of 14th Avenue, although north of the avenue it is capable of handling the traffic associated with a collector street.

- 14th Avenue is located on a high ridge. Unlike College Point Boulevard at Linden Place, or 20th Avenue, 14th Avenue is passable after heavy rains. This coupled with the fact that the Avenue bridges the Whitestone Expressway is the main reason for its use as a collector street in College Point. However, its design capacity is more appropriately that of a local residential street. In addition, several physical deficiencies impede traffic flow. The middle of the street is considerably higher than the portions along either curb. This "high crown" appears to make drivers uneasy. In some locations, too, the lack of adequate curbs inhibits visual definition of the street and may cause driver inaccuracies when passing, turning or parking. The presence of old large trees also obscures views of traffic entering from side streets.

- The deficiencies of 20th Avenue limit its potential as a collector street. It has only one moving lane of traffic in each direction, making passing hazardous. Moreover, because it lacks storm sewers, the street is flooded during heavy rains. (20th Avenue is planned to be raised and widened, however, from 130th Street to the Whitestone Expressway, in connection with the Industrial Park development.)

WHITESTONE-BEECHHURST

The two north-south collector streets in Whitestone are 154th and Clintonville Streets. They are wider than adjacent residential streets, and have no obvious capacity restraints. However, there are a number of relatively minor deficiencies in traffic movement. The skewed configuration of 14th Road, which is offset on either side of 152d Street, makes it difficult for cars to cross this intersection. Therefore, drivers tend to avoid it and use the Cross Island Parkway service roads for east-west movements through Whitestone. This means that cars and trucks bound for 154th Street must continue east beyond it to the overpass at Francis Lewis Boulevard, and then make a U-turn back to 154th Street.

Parking is a serious problem in two areas. Whitestone General Hospital has only 45 off-street parking spaces. Double-parking near 166th Street and 12th Avenue reflects the overflow at Whitestone General. Beechhurst Medical Center provides no off-street parking at all. The presence nearby of LeHavre Apartments, a high-rise residential complex, heightens the competition for parking space and compounds the problem at Beechhurst.

BAY TERRACE

Some collector streets in Bay Terrace have the following problems:

- Because of its proximity to the Bay Terrace Shopping Center, 26th Avenue serves shopping traffic and since it has an irregular width, the free flow of traffic is impeded.

- The configuration of 26th Avenue's intersection with Bell Boulevard encourages traffic to move southbound onto the Boulevard. Between 26th and 35th Avenues, however, the Boulevard has only one moving lane in each direction. There are a number of curb cuts for driveways in the adjacent low-density residential neighborhood. Widening of the two-lane sections of Bell Boulevard is undesirable because it would reduce the pleasant deep setbacks in this residential section.

- The exit ramp from the Cross Island Parkway eastbound to Willets Point Boulevard ends in a right turn leading into an intersection. Bumper-to-bumper traffic here frequently extends back up the exit ramp onto moving lanes of the Parkway, impeding traffic, shortening deceleration distances and causing through-traffic to weave into high-speed lanes.

DOUGLASTON-LITTLE NECK

Northern Boulevard is the only thoroughfare north of the Long Island Expressway connecting Douglaston-Little Neck with streets and highways west across Little Neck Bay and Alley Park. Thus, it functions primarily as a major arterial rather than a collector street. It serves areas north of Northern Boulevard in New York City as well as Great Neck in Nassau County.

Its extensive width (accommodating two moving lanes in each direction), two parking lanes and progressive signal timing serve to increase capacity nearly to meet peak flows. Many cross streets and occasional curb-cuts, however, reduce its capacity east of Douglaston Parkway, and impede peak hour movements.

(A listing of current capital budget projects for transportation improvements appears in Table B in the appendix. Recommended improvements are included in Chapter IV and Table C in the appendix.)

II. SEWERS

The North Shore Study Area lies within the Tallman's Island Water Pollution Control area. Storm, sanitary and combined sewage in Northeast Queens all feed through three major systems into the sewage treatment plant on the Tallman's Island Peninsula in College Point.

The sewage treatment plant's capacity was expanded from 40 to 60 million gallons per day (M.G.D.) in 1965. It currently serves approximately 425,000 persons and is being expanded to 80 M.G.D. to meet the sanitary flows generated by a population of 600,000 and higher sewage treatment standards applicable to the City as a whole.

The elements of the North Shore sewer system that would be most critical in limiting the size of large-scale residential developments are the regulators, pumping stations and local trunk sewers.

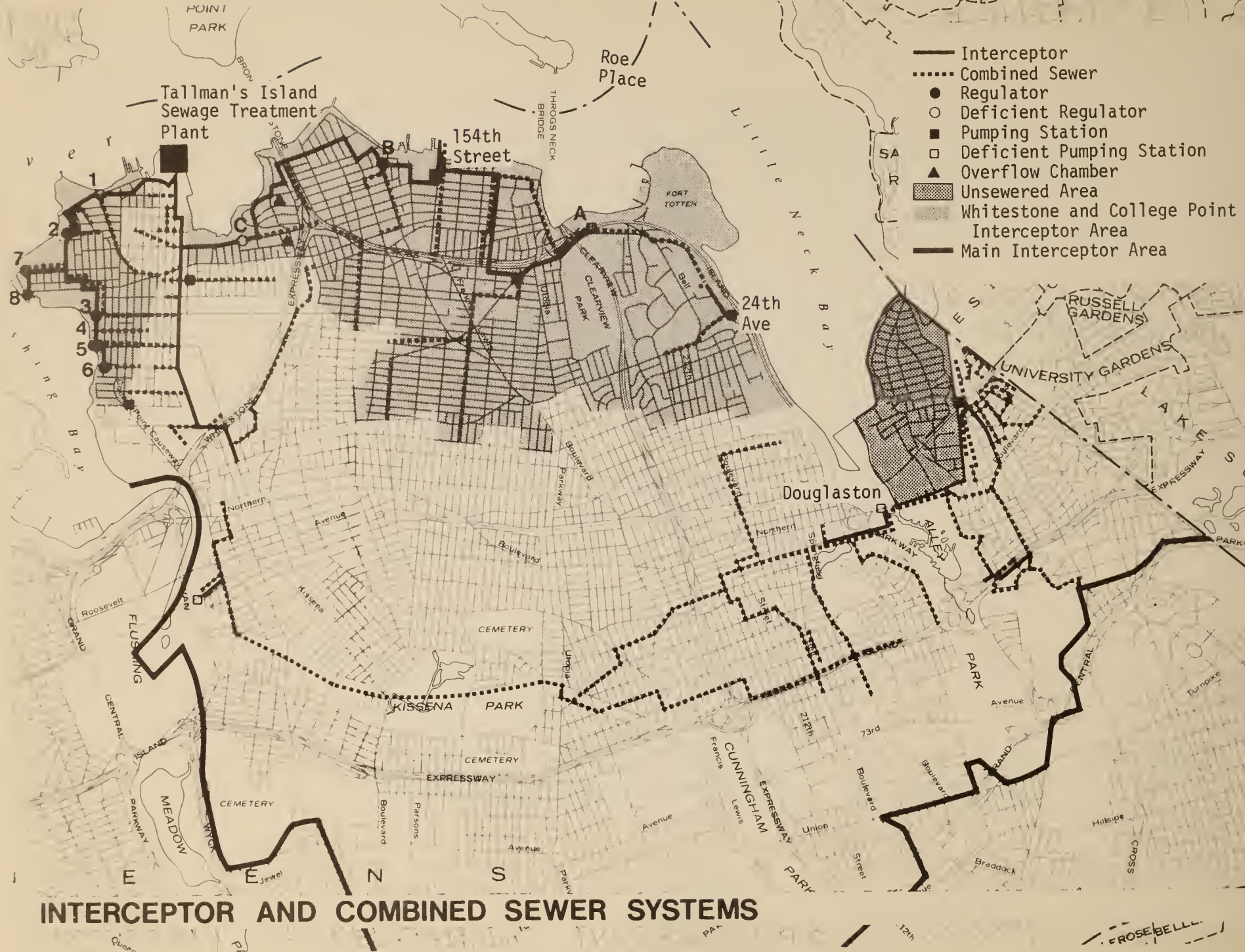
Sanitary mains and combined sewers lead, at various points in the system, to regulators and pumping stations. Regulators direct the normal dry weather sewage flow to the treatment plant. During heavy rainstorms, excessive storm waters can double the average dry weather flow. This can overload the treatment plant unless regulators shunt untreated sewage into adjacent rivers or bays until the flow drops to more moderate levels. Pumping stations move the sewage flow when the gravity system cannot be employed. Each regulator and pumping station serves a specific area; population is, in effect, limited by the design capacity of these facilities.

A large and sudden infusion of population into any area, such as would occur with a large-scale residential development, requires careful consideration of regulator, pumping stations and existing sewer line capacity.

There are two major interceptors and one branch interceptor leading to the Tallman's Island Water Pollution Control Plant. The College Point interceptor includes within its drainage area the community of College Point. The main interceptor serves the rest of Northeast Queens. The communities of Whitestone and Bay Terrace are served by the Whitestone interceptor, a branch of the main interceptor.

The College Point interceptor has eight regulators:

1. Regulator R-1 at Poppenhusen Avenue and College Place
2. Regulator R-2 at Powell's Cove Boulevard and 9th Avenue
3. Regulator R-3 at 20th Avenue and 119th Street
4. Regulator R-4 at 22d Avenue and 119th Street
5. Regulator R-5 at 23d Avenue and 119th Street
6. Regulator R-6 at 25th Avenue and 120th Street
7. Regulator R-7 at 14th Avenue and 110th Street
8. Regulator R-8 at 15th Avenue and 110th Street



INTERCEPTOR AND COMBINED SEWER SYSTEMS

College Point Interceptor Area

Regulator #1 Area - Sites E and F*

Two adjacent potential development sites comprising about 44 acres (to the bulkhead line) north of 5th Avenue between McNeil Park and Tallman's Island are located in the regulator #1 inlet area. This regulator can serve about 5,700 persons more than the estimated 1973 population levels.

Regulator #2 Area - Sites C and D

Two adjacent potential development sites on 13-3/4 acres of fill in Flushing Bay, west of 115th Street and 9th and 10th Avenues, are in the regulator #2 inlet area. The area now has a population of 9,100 persons below the regulator's design capacity.

Because of the limited potential size of developments and the absence of a substantial impact on the capacity of regulator #2, it is not expected that special sewer construction would be required.

Regulator #5 Area - Sites A and B

Two adjacent sites west of 120th Street at 25th Avenue have been identified as potential locations for large-scale residential development. They are located in the regulator #5 area. This regulator can serve an additional 2,300 persons.

Whitestone Interceptor Area

154th Street Pumping Station Area - Sites J and K

Two adjacent privately proposed development sites comprising about 37 acres to the bulkhead line are situated in the 154th Street pumping station inlet area. The design capacity of the recently upgraded pumping station would allow an additional 12,000 persons in the inlet area.

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*See map, page 8.

The Whitestone interceptor has three pumping stations and three regulators:

1. Pumping station at 24th Avenue and 217th Street, tributary to the Roe Place pumping station
2. Pumping station at Roe Place and Cross Island Parkway
3. Regulator "A" at 166th Street and 15th Drive
4. Pumping station at 154th Street and Powell's Cove Boulevard
5. Regulator "B" at 7th Avenue and 151st Street
6. Regulator "C" at 138th Street and 11th Avenue

In the main interceptor area only the principal pumping station in the Douglaston area, located near Northern Boulevard and 227th Street (Douglaston #1 pumping station), is in the North Shore Study Area.

SEWER ANALYSIS BY COMMUNITY

Information relating to the design capacity of the existing sewer system in each community is presented in Table D in the appendix.

The tables are intended to indicate how much additional population can be served by the existing sanitary sewer system based on the design capacities of each regulator and pumping station and the average daily per capita flow for each community.*

The potential development sites identified below are listed with the individual regulator or pumping station that would serve the project. Suggested actions relating to sewage control and construction to be undertaken by project developers or the City are discussed in Chapter IV.

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*Flooding problems on existing streets arise from clogged sewers or the absence of storm sewers. Several new storm sewer projects are listed in Table B in the appendix. The Department of Water Resources also has drainage plan studies underway in College Point and Douglaston due to be completed by 1976, at which time detailed design of storm sewers could be undertaken.

Bay Terrace

Roe Place Pumping Station - Site M

The 28-1/2 acre former GT&E research center at Willets Point Boulevard and the Clearview Expressway is situated in the Roe Place pumping station area. This pumping station is presently operating near capacity.

24th Avenue Pumping Station Area - Site N

A proposed development adjacent to the Bay Terrace shopping center could be situated in the inlet area of the 24th Avenue pumping station. The pumping station's design capacity can absorb an additional 6,800 persons above the estimated 1973 tributary area population of 5,400 persons.

Main Interceptor Area

Douglaston #1 Pumping Station Area - Site R

The Douglaston and Little Neck communities are served by a pumping station situated on Northern Boulevard and 227th Street in Douglaston. Its tributary area is 2,335 acres, covering all of Douglaston north of Grand Central Parkway. The design capacity of the pumping station is insufficient, allowing for about 9,000 persons less than the estimated 1973 population for the inlet area.

Most of the area in Douglaston Bay and Douglaston Manor remains unsewered and is served largely by septic tanks. Seepage of sewage effluent into the neighborhood streets and the schoolyard of P.S.98 are attributable to the failure of many septic tanks serving private homes in the area. As a result of these failures the quality of water in Little Neck Bay had deteriorated. These failing septic tanks cannot be repaired because of poor subsoils. According to the Bureau of Sanitary Engineering of the Department of Health the situation represents a public health problem.

(A listing of sewer, pumping station and drainage projects in the City's capital budget appears in Table B in the appendix.)

UTILITIES

Electricity

The North Shore is in the service territory of Consolidated Edison Company of New York, Inc. Two power plants, Ravenswood and Astoria, provide electricity for the North Queens area. A grid of heavy voltage lines connects plants to substations. The substations service the local network area. There are about 50 such local network areas in New York City.

The North Shore Study Area is directly served by the Flushing power network which is supplied by a substation at 99th Street and Radcliffe Avenue in Corona. This substation takes 138,000 volts transmitted to it, steps it down to 77,000 volts and sends it along local feeder cables to street transformers. The latter further step down the voltage for home use.

Consolidated Edison believes that the Corona substation can service anticipated electrical requirements of the North Shore, including potential new housing developments. Upgrading will go on periodically.

Water

According to the Department of Water Resources, water supply and pressure in the North Shore is generally adequate. In peak periods during the summer months, however, pressure drops significantly in areas of high elevation (80 feet or more above sea level) in Flushing and Bayside. Two pumping stations in Clearview and Bayside are being built to help boost pressure here during the peak summer period. New multi-family, high-rise buildings contain their own pumps to maintain adequate and consistent water pressure. Buildings Department regulations, however, restrict these pumps to low volumes to prevent drops in water main pressure in the surrounding areas.

The fundamental reason for inadequate pressure is the limitation of the trunk main capacity entering the North Shore. Construction of a new 72-inch main linking the major water tunnel in Astoria to the water supply network in the North Shore will assure adequate water supplies and pressure throughout the Study Area. The main is scheduled for completion in 1977. In the interim, the Department of Water Resources will review any large-scale development proposal in relation to water supply.

Because of the high elevation in Douglaston-Little Neck, a continuously operating pumping station will continue to serve that area. College Point and Whitestone are low-lying communities and currently have adequate water supply and water pressure.

Gas Supply

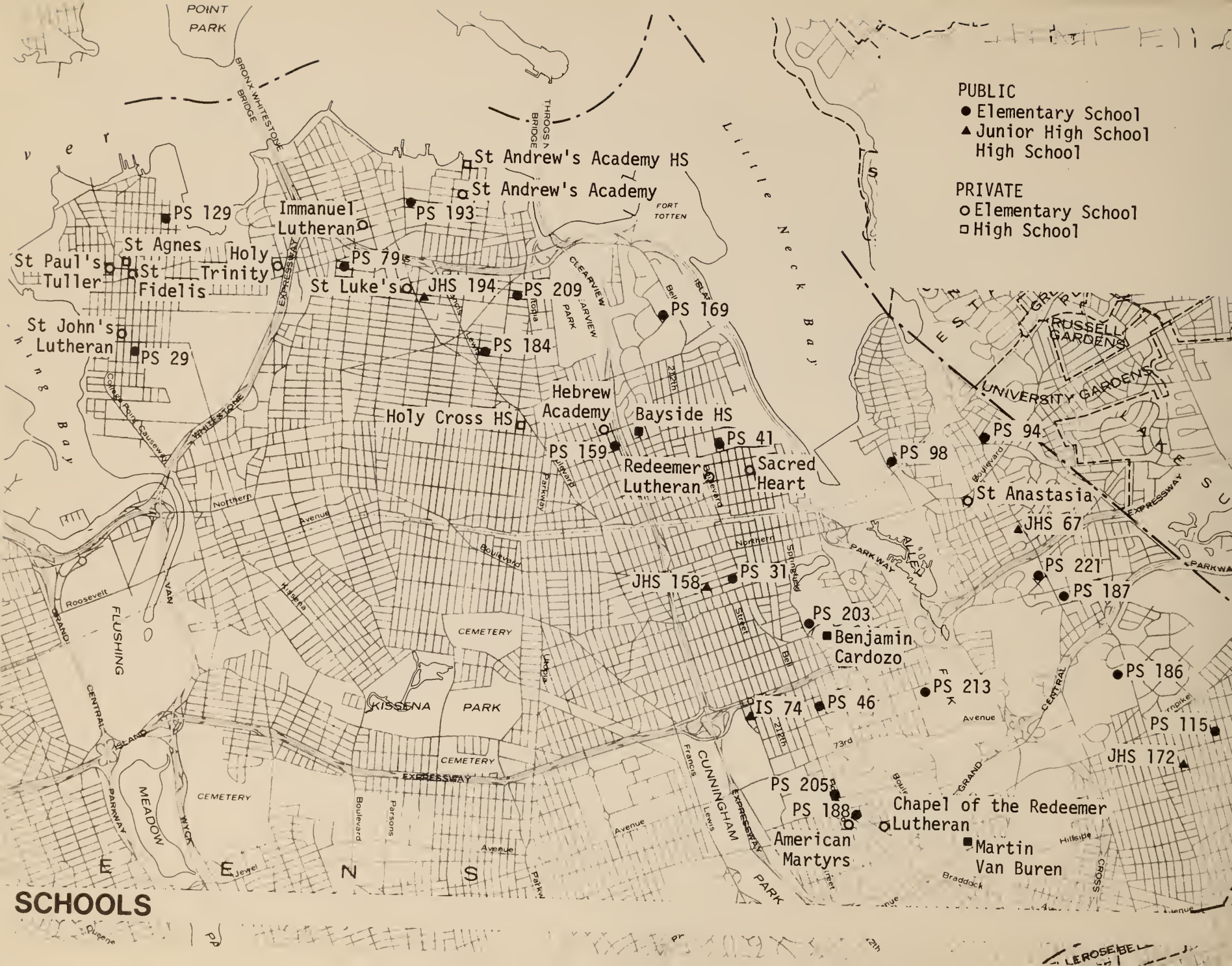
Consolidated Edison also supplies natural gas service on the North Shore. The natural gas shortage of the past few years has mostly affected industrial and commercial users that receive gas on an interruptable basis. Current Public Service Commission regulations prohibit the supply of gas for home heating in new multi-family developments. Fuel oil would be used for heating, and gas for cooking and hot water. In new one- and two-family houses, gas may still be supplied for all three purposes. However, if Con Edison succeeds in obtaining State permission to stop providing gas service to all new users, then fuel oil or electricity would be substituted for gas in all new housing developments.

SCHOOLS

Schools on the North Shore are among the best in New York City. The majority of students in Community School Districts 25 and 26 read at or above grade levels. Parochial schools in the area enjoy a similarly good reputation.

An examination of enrollment trends since 1967 reveals a significant, steady drop in most schools. In fact, between 1967 and 1973, every public elementary and intermediate school but one registered some decline. Tables D and E in the appendix detail enrollment capacity and utilization data for three sub-areas: College Point-Whitestone, Bayside and Douglaston-Little Neck. These sub-areas are the smallest that permit detailed analysis of both birth trends and enrollment data in Board of Education studies.

In the 1973-74 school year, public elementary schools were operating, on the average, at 85 per cent of capacity in College Point-Whitestone, 61 per cent in Bayside and 65 per cent in Douglaston-Little Neck. There are currently more than 7,200 public elementary school seats available on the North Shore.


PUBLIC
Elementary School
Junior High School
High School
PRIVATE
Elementary School
High School
SCHOOLS
PS 129
St Agnes
St Paul's
Tuller
St
Fidelis
Holy
Trinity
Immanuel
Lutheran
St Andrew's Academy HS
St Andrew's Academy
PS 193
PS 79
St Luke's
JHS 194
PS 209
PS 169
St John's
Lutheran
PS 29
PS 184
Holy Cross HS
Hebrew
Academy
Bayside HS
PS 159
PS 41
Redeemer
Lutheran
Sacred
Heart
PS 98
PS 94
St Anastasia
JHS 67
PS 221
PS 187
JHS 158
PS 31
PS 203
Benjamin
Cardozo
PS 213
PS 186
IS 74
PS 46
PS 115
JHS 172
PS 205
PS 188
American
Martyrs
Chapel of the Redeemer
Lutheran
Martin
Van Buren
RUSSELL GARDENS
UNIVERSITY GARDENS
FLUSHING
MEADOW
KISSENA PARK
CUNNINGHAM PARK
CEMETERY
Little Neck Bay
Whitestone Expressway
Clearview Expressway
Grand Central Parkway
Northern Boulevard
Bell Boulevard
Francis Lewis Boulevard
Parsons Boulevard
Utopia Parkway
Main Street
Fort Totten
Throgs Neck Bridge
Bronx Whitestone Bridge
Willets Point Boulevard
Roosevelt Avenue
Jewel Avenue
Hillside Avenue
73rd Avenue
55th Street
21st Street
Braddock Avenue
Cross Island Parkway
Van Wyck Expressway
Long Island Expressway
Grand Central Parkway
Clearview Park
Alley Pond Park
Point Park

At the intermediate level, schools were operating at 85 per cent of capacity in College Point-Whitestone, 92 per cent in Bayside, and 75 per cent in Douglaston-Little Neck. There are now more than 1,700 vacant intermediate and junior high school seats on the North Shore. Enrollment data as of October 31, 1974 and projections to the 1977-78 school year indicate further declines in elementary and intermediate school enrollments. The major reasons for falling enrollments are the declining national birth rate and the aging of the study area's population.

The schools that have experienced little change in enrollments are in the neighborhoods where a considerable amount of new housing construction has taken place. In Bay Terrace, for example, the attendance zones of P.S.209 and P.S.169 include almost 800 housing units built between 1970 and 1973. Enrollments remained virtually constant during that period.

Only at the high school level is there a capacity problem. If scheduled school projects are completed by 1977 to 1978 as planned, high school capacity throughout Queens would almost meet the projected enrollment. At the present time, each of the five high schools serving the North Shore is operating above capacity, ranging from 103 per cent utilization at Cardoza High School to 118 per cent at Francis Lewis High School. However, large-scale developments provide relatively few high school students.

Non-Public Schools

There is somewhat greater enrollment in public than in parochial or private schools for the North Shore as a whole, compared to Queens as a whole. This is true at both elementary and high school levels. Within the North Shore, however, there are wide differences between communities: in College Point, on the elementary level, 52 per cent attend a non-public school; in Bay Terrace, only 9 per cent do so. Private (non-parochial) school enrollments on the North Shore comprise only 2 per cent of the total elementary and intermediate level population, and 7 per cent of the total number of high school students. The great majority of non-public school students attends parochial schools.

In the past few years, parochial school enrollments have declined on the elementary level but have risen slightly at the high school level. In 1973-74 there were nearly 13,000 students in 22 elementary-level parochial schools in Community Planning Districts 7 and 11. This drop from almost 15,000 in 1971 represents a

decrease of 9.7 per cent compared to an 8.9 per cent decline in North Shore elementary public school enrollments during the same period. No parochial schools have closed or appear to be in danger of closing.

Projected Enrollment from New Housing

To estimate the potential impact of a large-scale housing development on local schools, it is necessary to know the characteristics of the proposed housing in terms of housing type and the income of occupants. Newly built one- and two-family houses usually supply more children to the school system than new multi-family developments. Specifically, new one- and two-family houses supply about one child per dwelling unit on an elementary level, and 0.5 children on an intermediate level.

Board of Education studies indicate that for every 100 housing units in upper middle-income apartment developments, however, no more than six students should be expected in kindergarten through the fourth grades, and no more than six, also, in grades five through eight. This low ratio largely reflects the fact that most new apartments have relatively few bedrooms.

Table E in the Appendix applies these ratios to the existing number of vacant seats to show the estimated maximum number of upper middle-income apartment units that public elementary schools could support in the Study Area. Existing under-utilization means that these schools could conceivably--not desirably--support more than 20,000 new units of multi-family housing throughout the North Shore.

The actual number of supportable units, however, might be below that estimated amount, depending on the housing type and apartment distribution. On the other hand, the number of vacant seats is expected to increase significantly throughout the North Shore in the next few years. Utilization in public elementary schools in 1978-1979 is projected to be well below 70 per cent.

Despite the busing in of more than 1,700 elementary and 270 intermediate students from Community School District 29 in 1973, underutilization in Community School District 26 was widespread. District 26 is faced with a large budget deficit that must be met through reductions in teaching staff, or curtailment of after-school programs, or both. Consolidation of some underutilized schools appears likely, and alternative uses for school buildings are now under consideration.

The City's Capital Budget includes funds for the design and construction of physical improvements to several schools on the North Shore.

P.S.29 lacks a gymnasium and cafeteria and is scheduled to receive a multipurpose addition. P.S.79 has a 250-seat addition under construction scheduled for completion by fall 1975. Modernizations are underway at Public Schools 31, 94 and 129. Playground renovations are in construction at P.S.98 and are in planning for the Bayside High School field. In view of declining enrollments throughout most of the City, current policy emphasizes the modernization and upgrading of existing schools rather than building new schools.

RECREATION

Recreational Open Space

A total of 117 acres of recreational open spaces is accessible to the public within the North Shore Study Area. These spaces include vest-pocket parks, park strips and triangles, neighborhood playgrounds, athletic fields and community parks. The available open spaces represent an estimated ratio of 1.24 acres per 1,000 population within the Study Area. This compares with a 2.28 ratio in Community Planning District 7, 1.09 in Community Planning District 11, 2.54 in Community Planning District 13, and 1.57 in Queens as a whole. In addition, these three Community Planning Districts contain 1,609 acres of metropolitan park spaces. These parks are available to all New Yorkers.

Fort Totten, portions of which have been declared surplus, is of great historical significance and potential regional recreational value. Planning for alternative uses and for the ultimate conveyance of surplus areas from the Federal government to the City is being pursued.

(A listing of recreational resources by community appears in Table F in the appendix.)

COLLEGE POINT

College Point has some 50 acres of parks and playgrounds, or about 2.36 acres per 1,000 persons. This recreational space ranges from .05 to 28.8 acres in size. Both active and passive spaces are generally in good condition. The main exceptions

EXISTING RECREATIONAL FACILITIES

are patches of lawn in hilly parts of McNeil Park that show evidence of overuse and poor maintenance. Tallman's Island Park is now being upgraded.

There are also 66 acres of potential open space that could serve College Point. This consists of the proposed 44-acre Powell's Cove Park and the 22-acre College Point Sports Association field, leased on a long-term basis from the Public Development Corporation.

WHITESTONE

Whitestone has some 30 acres of parks and playgrounds, ranging in size from the 1-1/2-acre Alfred J. Kennedy Playground to the nearly 17-acre Francis Lewis Park. This space appears to be augmented appreciably by LeHavre Housing, a large residential development with more than 17 acres of private open space devoted to recreational use in both its active and contemplative forms. This space, however, is designed for use by tenants, and is available only to a small number of local neighborhood residents.

At the Catholic Youth Organization's Woodhaven facilities on Powell's Cove Boulevard, the Whitestone Yacht Club in the East River and a privately owned beach at Powell's Cove Boulevard near 150th Street, the use of facilities is restricted to members.

BAY TERRACE

Bay Terrace contains 30 acres of parks and playgrounds ranging in size from 1.7 to 26.9 acres. This works out to 1.69 acres per 1,000 persons. With the exception of Clearview Beach, the physical condition of these resources is good.

In addition, Bay Terrace has about 25 acres of private open space and nearly 15 acres of undeveloped publicly owned land. Two of these three areas are located at the Cross Island Parkway and are used for teen-age sports activities.

DOUGLASTON-LITTLE NECK

Bounded by Northern Boulevard, Little Neck Bay and the New York City-Nassau County line, the Douglaston Manor community contains only one public recreation area, the playground at P.S.98. The area, however, is a low-density residential neighborhood, and is the only North Shore community that offers clear public access to the

shorefront of Little Neck Bay. In addition, the Douglaston Manor Club offers two acres of active recreational facilities for community residents.

CREEDMOOR

There is a total of 5.4 acres of publicly accessible open space within the local Creedmoor community. This represents .45 acre per 1,000 population. The two principal recreation resources serving local needs are the Glen Oaks Village Oval (2.9 acres) and the playground adjacent to P.S.189 (2.0 acres).

The Glen Oaks Golf Course (slightly less than 126 acres) is part of the North Shore Towers development nearing completion in the northeast corner of the local neighborhood. Its use will be limited to residents of the housing development. Within the Creedmoor neighborhood, there is a four-acre playground on Commonwealth Boulevard owned by the New York State Department of Mental Hygiene and currently used exclusively by children of the New York State Children's Psychiatric Hospital.

INDOOR RECREATIONAL FACILITIES

The Continuing Education Divisions of Community School Boards 25 and 26 conduct after-school centers, evening community centers, summer day camps and athletic field programs. With the exception of a fully utilized swimming pool at Bayside High, the main problem seems to be one of funding rather than lack of space or facilities. There are waiting lists for those who wish to take advantage of subsidized openings of schools after hours.

A number of North Shore churches and synagogues and the Samuel Field YMHA have recreation programs for the elderly. More comprehensive programs for lower-income residents, including provision of hot lunch and group work, are provided at Latimer Gardens and Bland Houses near Downtown Flushing.

COMMERCIAL FACILITIES

Existing commercial facilities consist largely of neighborhood retail and service stores located in strips on local shopping streets or in small centers. Typical commercial establishments include grocery and drug stores, bakeries, barber and beauty shops, dry cleaners, and shoe repair shops. These are sometimes referred

to as "convenience goods" (and services), in distinction from "shopper goods" such as furniture and appliances.

Market area boundaries generally conform to the natural or man-made boundaries that define the North Shore communities. The map on page 62 delineates the convenience shopping market area.

From a Bureau of Labor Statistics survey of consumer expenditures, as well as 1970 census data on population and income, an estimate was made of the total dollars spent within each market area on convenience goods and services. By utilizing an estimated gross income of $185 per year* per gross square foot of convenience goods space, a projection was made of the amount of such space that existing and potential populations could support in each market area. The ability for this potential to be realized within each convenience market area depends, of course, on several variables, not the least of which are competitive development in nearby areas and the provision of amenities such as parking.

College Point currently contains about 100,500 gross square feet of occupied retail space, of which 59,700 square feet, or 59 per cent, represent convenience goods.

The majority of retail shops are on College Point Boulevard, between 14th and 23d Avenues. The most significant deficiencies of College Point Boulevard's commercial areas appear to be inadequate space for parking or loading and minimal pedestrian amenities.

There is also a small self-contained shopping center at 14th Avenue and 132d Street. Parking appears to be adequate here.

Based on total dollars available within the College Point market area for purchase of convenience goods ($17,620,000) and utilizing the annual income figure of $185 per square foot, the community can support 95,200 square feet of convenience retail space. This is 35,500 square feet or 59 per cent in excess of existing facilities. Much of this potential demand is now being served by a shopping center south of the Whitestone Expressway at Farrington Street.

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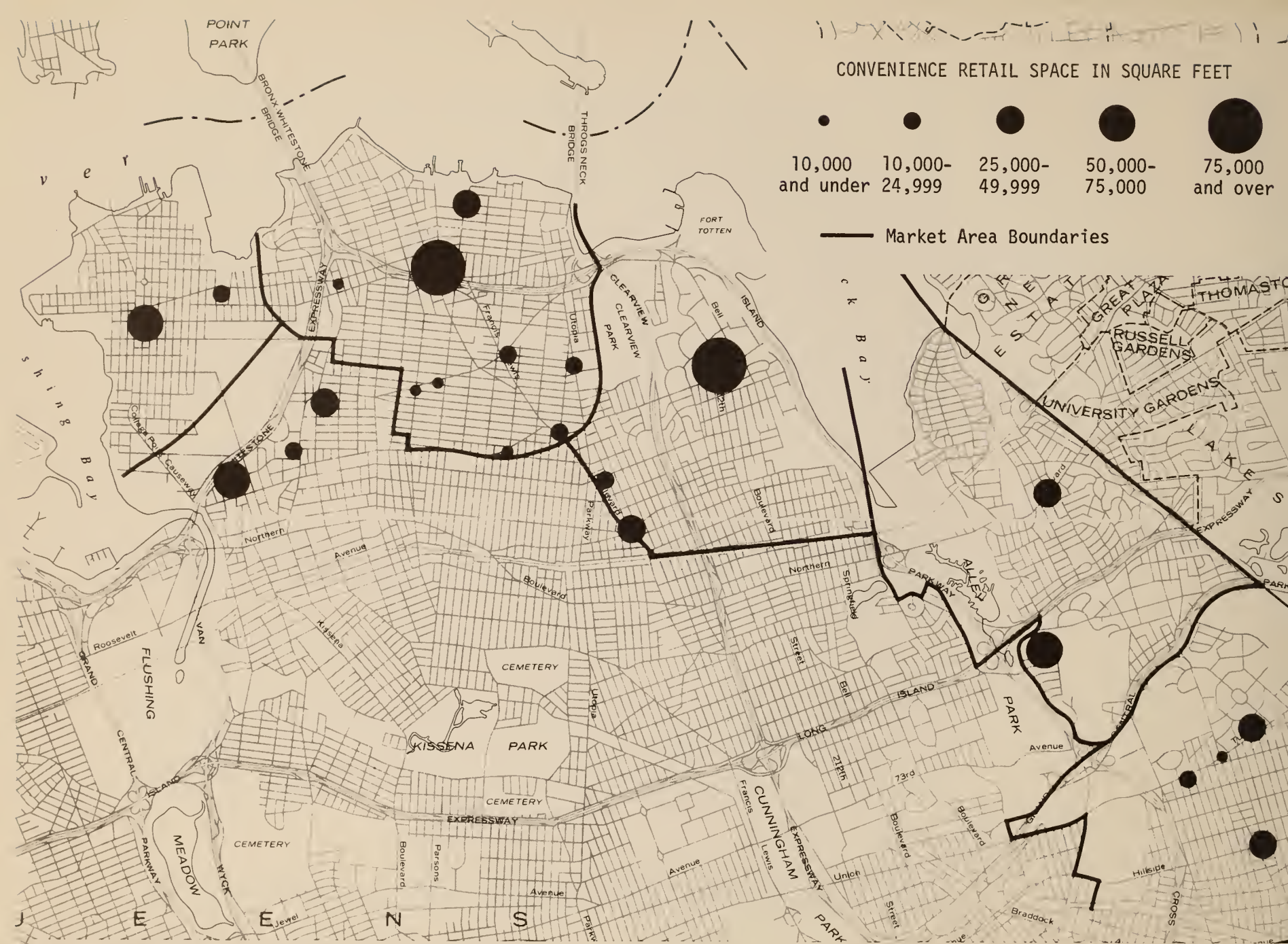
*Weighted average between supermarket income and other convenience goods income.



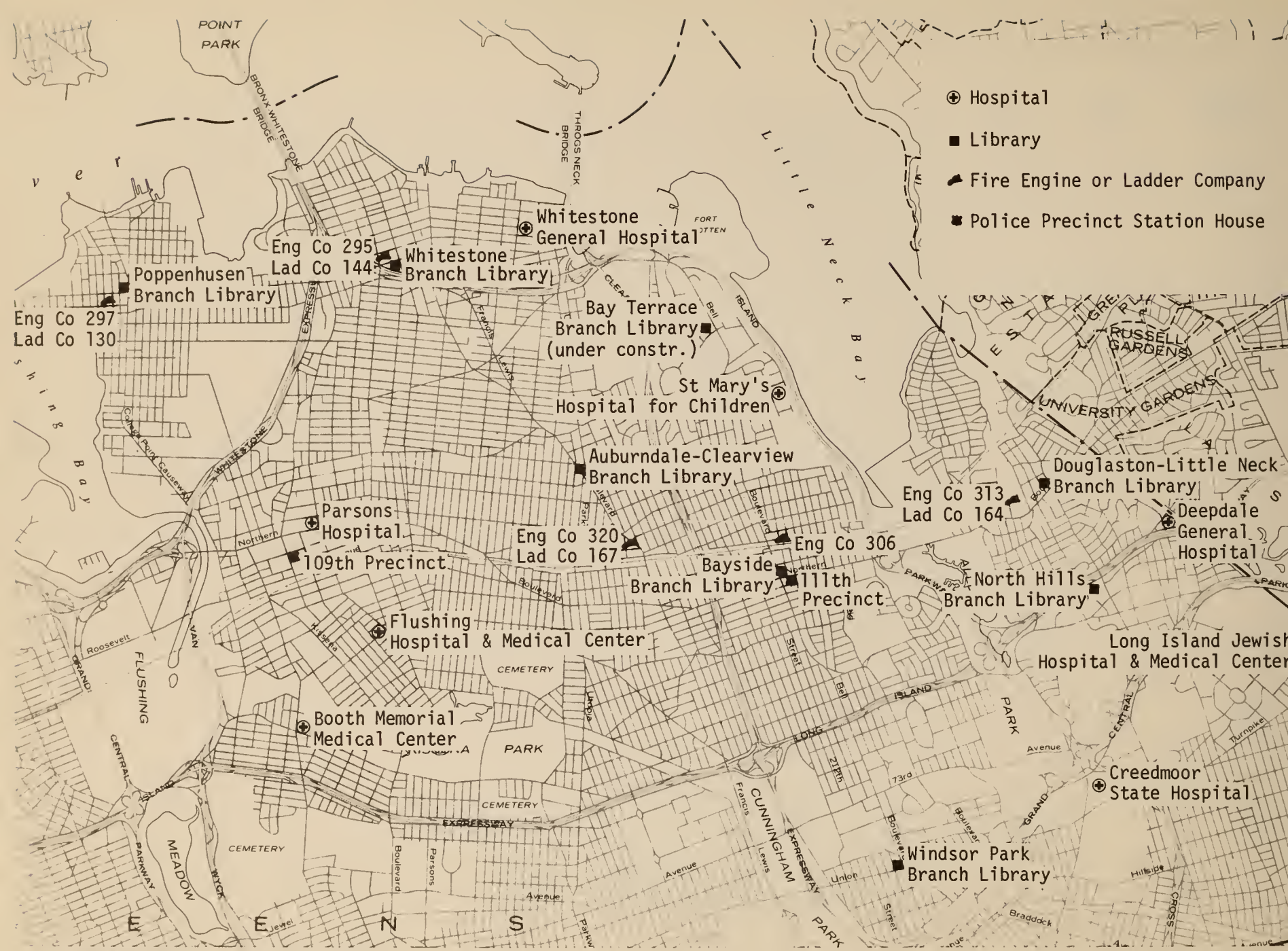
CONVENIENCE MARKET AREAS

The Beechhurst-Whitestone community contains 215,400 square feet of occupied retail area, of which 111,400 square feet, or 52 per cent, is used for the sale of convenience goods. These retail facilities are located within two self-contained shopping centers and a larger area within the older part of the community. The larger of the two self-contained shopping centers is located at the Cross Island Parkway and Clintonville Street. The failure to provide a buffer strip separating service traffic from pedestrian areas detracts from the center's visual appeal. Otherwise, parking and loading facilities are adequate. The second shopping center, on 154th Street and 10th Avenue, is self-contained and consumer services and amenities are adequate. Main shopping streets are Clintonville Street and 150th Street, from 10th Avenue to the Cross Island Parkway. The quality of parking, loading and consumer amenities is similar to that of the main shopping streets in College Point.

With available total expenditures of $15,795,000, the community can support 85,400 square feet of convenience goods stores. This represents 26,000 square feet, or 23 per cent, less than existing facilities. The additional area is supported by shoppers from neighboring communities south of the Cross Island Parkway. These communities contain 61,000 square feet of convenience goods space, have available an annual $31,523,000 in purchasing power and can support 170,400 square feet of convenience goods space. With a total of 172,400 square feet of occupied space presently existing north and south of the Parkway, the entire market area can support 83,400 square feet, or 40 per cent, in excess of present space in convenience goods stores.

In Bay Terrace, there is currently a total of 209,220 square feet of retail space of which 92,344 square feet, or 44 per cent, is in convenience goods. Most of this space is concentrated in the Bay Terrace Shopping Center, at 26th Avenue and Bell Boulevard, which contains approximately 150,000 gross square feet and includes both shopper and convenience goods outlets, as well as recreational facilities. With $37,867,000 available annually for convenience goods purchase, the Bay Terrace market area could support 204,000 square feet of space. This is 112,000 square feet, or 120 per cent more than the present level.

The Douglaston-Little Neck market area currently contains 204,000 square feet of retail space, of which 69,700 square feet, or 34 per cent, represents occupied convenience goods stores. The majority of this space is concentrated along Northern Boulevard from 244th Street east to the New York City-Nassau County line. With available annual purchasing power of $18,900,000, this community could support 102,000 square feet of convenience shopping, which is 32,500, or 46 per cent, over the present gross area.


Hospital
Library
Fire Engine or Ladder Company
Police Precinct Station House
Whitestone General Hospital
Eng Co 295
Lad Co 144
Whitestone Branch Library
Poppenhusen Branch Library
Eng Co 297
Lad Co 130
Bay Terrace Branch Library (under constr.)
St Mary's Hospital for Children
Auburndale-Clearview Branch Library
Douglaston-Little Neck Branch Library
Eng Co 313
Lad Co 164
Deepdale General Hospital
Parsons Hospital
109th Precinct
Eng Co 320
Lad Co 167
Eng Co 306
Bayside Branch Library
111th Precinct
North Hills Branch Library
Flushing Hospital & Medical Center
Long Island Jewish Hospital & Medical Center
Booth Memorial Medical Center
Creedmoor State Hospital
Windsor Park Branch Library
POINT PARK
BRONX-WHITESTONE BRIDGE
THROGS NECK BRIDGE
Little Neck Bay
FORT TOTTEN
RUSSELL GARDENS
UNIVERSITY GARDENS
EXPRESSWAY
Northern Boulevard
Roosevelt Avenue
Long Island Expressway
Grand Central Parkway
Meadow Wyck
CEMETERY
PARK
Union Street
Bell Boulevard
Francis Lewis Boulevard
Cunningham Park
Braddock Avenue
Hillside Avenue
Jewel Avenue
Parsons Boulevard
Utopia Parkway
Van Wyck Expressway
Clearview Expressway
Cross Island Parkway
Turnpike
73rd Avenue
211th Street
Park Lane South
Douglaston Parkway
Northern Boulevard
Queens Boulevard
Whitestone Expressway
Cross Island Parkway
Clearview Expressway
Francis Lewis Boulevard
Bell Boulevard
Union Street
Utopia Parkway
Parsons Boulevard
Jewel Avenue
Meadow Wyck
Van Wyck Expressway
Grand Central Parkway
Roosevelt Avenue
Long Island Express

The Creedmoor community current contains 287,900 square feet of retail space. Forty-two per cent of it, or 120,000 square feet, is devoted to convenience goods. Retail facilities serving this community are located on Union Turnpike from approximately 249th Street to 260th Street. The area embraces the Glen Oaks Shopping Center between 255th and 260th Streets. With $37,592,500 available for purchases, this community could support 203,000 square feet of facilities for convenience goods. This is 82,000 square feet, or 69 per cent, above the present level.

In summary, North Shore communities contain approximately one million square feet of retail space, of which about half is devoted to convenience goods. With estimated total annual expenditures for convenience shopping of nearly $160 million, these communities could support 864,000 square feet of convenience goods facilities. This represents approximately two-thirds more than present levels, or more than 350,000 square feet of additional convenience goods space that could be supported by the existing population.

HEALTH

Residents of the North Shore have fewer health problems on the average than the general population, measured by health indices such as infant mortality, venereal disease and other communicable diseases. Expansion of counseling and mental health services has been undertaken recently by private and public agencies.

The six hospitals on the North Shore contain a total of 1,624 beds. Utilization rates of these hospital beds in 1973 tended to be very high.

Long Island Jewish Medical Center (at Hillside) provides emergency ambulance service to Bayside, Oakland Gardens and Douglaston-Little Neck. College Point, Whitestone, Beechhurst and Clearview are similarly served by Flushing Hospital and Medical Center. Both hospitals operate this service under contract with the Emergency Medical Service, a division of the New York City Health and Hospitals Corporation. An emergency call to "911" is routed through the Emergency Medical Service dispatch center to the appropriate hospital. Several voluntary community ambulance corps supplement these services, and estimate that one-half of their calls are emergencies.

In 1973 there were ten nursing homes on the North Shore containing more than 1,900 beds. This represented about 29 per cent of all nursing home beds in Queens, although

Community Planning Districts 7 and 11 accounted for only 14 per cent of the borough's elderly population. To reduce the overconcentration of such facilities in neighborhoods, the City Planning Commission in January 1974 approved a special permit requirement for new nursing homes and health-related facilities in designated community planning districts. Community Planning District 7 is one of four districts so designated in Queens.

Several kinds of mental health services are rendered by a variety of institutions and agencies. Flushing Hospital and Medical Center has a mental health clinic which, in addition to therapeutic treatment, conducted a community education program in 1974 dealing with periods of personal crisis. The Flushing YM-YWHA recently began a pilot mental health program for the aged designed to help elderly persons to continue living independently instead of being institutionalized. The "Y" provides casework and psychological services in the person's home.

Since early 1974, several churches and a synagogue in Whitestone have sponsored a counseling center for the aged at the Epworth United Methodist Church. The Counseling Center of Queensborough Community College in November 1973 became the first counseling service within the City University to be professionally accredited. Community School Districts 25 and 26 offer counseling on drug prevention and abuse in the public schools. Several private agencies furnish additional counseling services.

Current Proposals and Plans

The three voluntary hospitals are actively planning major building programs. Booth Memorial anticipated expansion by constructing a four-story shell in 1967 for this purpose. An application for a State mortgage loan to finance a 96-bed expansion is currently under review. It will be possible to accommodate an additional 100 beds within the existing shell in the future. Booth Memorial is now formulating a long-range proposal for a new building on the existing site that would contain auxiliary services and possibly more bed space.

Flushing Hospital has a long-standing application before New York State for a mortgage loan to finance a new wing to replace obsolete facilities and to add bed space. The application was amended to provide for a reduction in the height of the new wing from eight to five stories, resulting in a total complement of 424 beds (medical-surgical, pediatrics and obstetrics). At present there is space for 325 beds.

The site of the new wing is presently improved with residential buildings now owned by the hospital and used temporarily by staff. When the new wing is completed, a building constructed in 1913 will be demolished to provide for parking and a new entranceway. In 1970 the City approved a zoning change to allow construction of the new building.

Long Island Jewish Hospital's North Shore Division is proposing a new children's hospital. It would also consolidate pediatric beds from the Hospital's South Shore Division and have programs not currently available to children in Queens.

The expansion of Flushing and Booth Memorial Hospitals is necessary in view of the high utilization rates and possible population growth on the North Shore. (To some extent, this high utilization reflects the favorable quality of care provided in these two institutions and a demand for this level of service.)

The ratio of beds in relation to population is lower in Queens than in any other borough. In 1973, Queens had 2.98 beds per 1,000 persons compared to 3.46 beds per thousand for the City (excluding Manhattan).

The Comprehensive Health Planning Agency is setting up District Boards throughout the City to evaluate health care proposals. The Board for CHP District "E" (which corresponds to Community Planning Districts 7 and 11) met for the first time in June 1974 and is formulating priorities for the area.

Planning for mental health and mental retardation services is to be accomplished through a Mental Health Council within the CHP District Board.

Another area of potential need involves response-time of ambulances. Voluntary ambulance corps in Beechhurst and Bay Terrace report difficulty in maintaining adequate schedules because of a fall-off in the number of volunteers.

POLICE AND FIRE PROTECTION

Police Service

The North Shore is policed by the 109th and 111th Precincts, both of which have outstanding records in controlling personal and property crimes. The 111th Precinct serving Beechhurst, Bayside and Douglaston-Little Neck had one of the

lowest ranking among the City's 71 precincts in incidence of robbery and rates of homicide and burglary. The 109th Precinct, which serves Flushing, College Point and Whitestone, similarly ranked low in crime rates, though not quite as low as the 111th.

Both precinct houses were constructed within the last six years. Each precinct has instituted such department-wide changes as a block security program, vertical patrols in high-rise buildings, and special radio cars for burglary and youth problems. In both precincts, burglary appears to occur more often in one- and two-family houses than in multi-family buildings.

Fire Service

Measured by response time and availability of equipment, fire service is adequate on the North Shore. The North Shore is covered by five engine companies, four ladder companies and one marine company within the 16th Fire Division. Firefighting equipment on the North Shore is highly underutilized. Engine companies averaged only 47 per cent of the Citywide average number of runs in 1973. Whitestone's engine company was the busiest on the North Shore in 1973 with 1,533 runs, which is still less than two-thirds of the Citywide average number of runs.

Ladder companies averaged 43 per cent of the Citywide average number of runs per company in 1973.

Concern has been expressed about the fire safety aspects of high-rise buildings, especially in view of the ineffectiveness of ladders above ten stories.

The Bureau of Planning Services of the Fire Department has evaluated aerial ladders extending to 15 stories as being too dangerous. The last section of ladder is only one foot wide. The main means of assuring fire safety is the Building Code, which requires stand pipes and fireproof construction in virtually all high-rise buildings.

PUBLIC LIBRARIES

There are six branch libraries within the North Shore Study Area: Auburndale-Clearview, Bayside, Douglaston-Little Neck, North Hills, Poppenhusen (in College Point), and Whitestone. These contain 292,000 books, or 1.77 books per capita, (exceeding the 1.0 to 1.25 recommended standard). All are adequate with regard to standards of accessibility, book stock and facility size, with one exception. The Douglaston-Little Neck branch is undersized (5,700 square feet instead of 7,500 square feet minimum standard) but no replacement or enlargement is planned because of its relatively poor circulation and the higher economic status of families within its service area.

Two additional libraries are planned: the Oakland Gardens and Bay Terrace branches are scheduled for completion in the summer of 1975.

Shorefront promenades, open to the public, would be required for all new waterfront developments. (Above, private walkway and park at Cryder House, Beechhurst.)

Chapter 4. Guiding North Shore Growth

The North Shore communities combine good housing and active industry with a spectacular waterfront setting. Residents have a sense of the past--and an eye toward the future. There is agreement that the qualities that make the North Shore attractive must be respected and preserved.

There is also agreement that the communities are vigorous and vital and cannot be frozen in space or time. They are part of the City--they contribute to it, benefit from it and are affected by it.

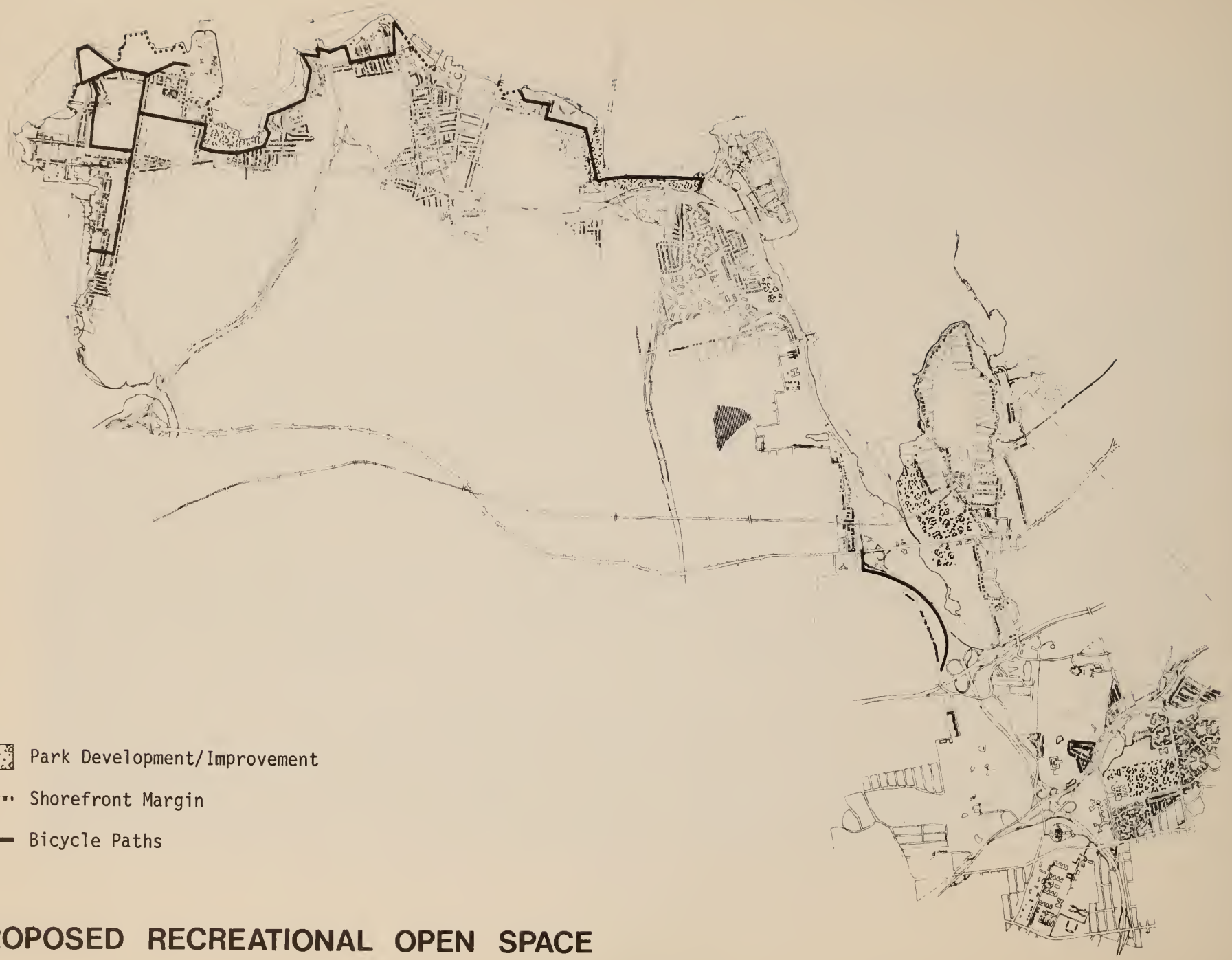
The basic issue which residents and planners face today is how to maintain what is best about the North Shore given the reality that certain largely vacant waterfront sites have been proposed for private development.

This chapter explores the options for guiding growth so that development fits in with the pattern and quality of life enjoyed by local residents. Recommendations are based on a study of the communities and discussions with community representatives. They are not hard and fast, but rather an approach to solving the problem of blending the new with the old.

Alternative paths are outlined that could lead to controlled development that protects community interests. The recommendations describe ways to open the waterfront for public use and enjoyment, increase the amount of open space, preserve wetlands, retain needed industry, and improve utilities, roads and transportation.

There have been a series of residential developments proposed by private builders for 16 sites in the North Shore Study Area (and one immediately adjacent to it). These 17 sites contain some 200 acres and generally are not zoned for residential development. (See Table A, page 76.)

Of these 17 sites, 11 are on, adjacent to or oriented toward the waterfront; there are three on or near an estuary; and three are inland. The sites are mainly vacant, with exceptions where there is active industry and a yacht club.



PROPOSED RECREATIONAL OPEN SPACE

Most of the waterfront sites keep people from--rather than attract them to--the shore. They are barriers--littered with debris--that separate the community from one of its most attractive attributes.

The three sites near the estuary are mainly wetlands next to Alley Park. The three inland sites are all presently zoned residential.

After analyzing neighborhood facilities and site characteristics and development potential, our recommendations indicate that some development could be accommodated that would enhance rather than disrupt community life on the North Shore.

Nine of the 11 waterfront sites should be considered for controlled residential development, with one site remaining industrial and the other site remaining as a yacht club. The three sites next to Alley Park should be acquired for recreational use. No action is proposed to change the status of the three inland sites except to apply the appropriate design guidelines for residential development as a trade-off for any required or requested public zoning or mapping action. This comprehensive planning study is being submitted for review by Community Boards 7 and 11. No public action will be initiated by the City Planning Commission before that review can take place. The report presents options for the boards to consider so that the path chosen can be arrived at only after thorough public airing of the alternatives.

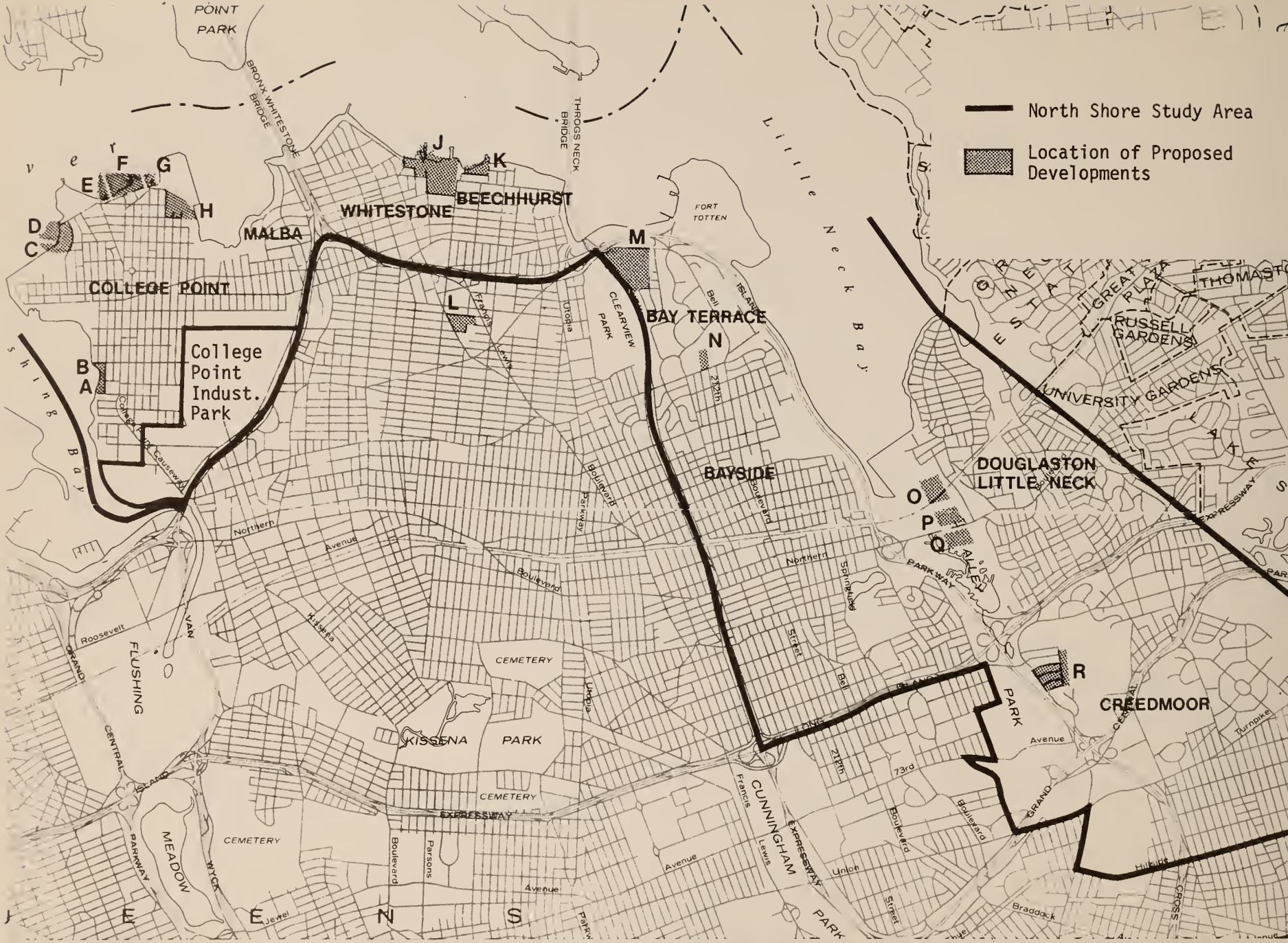
Our recommendations fall into four broad categories: Land Use; Design Controls; Infrastructure Improvements and Implementation Alternatives.

LAND USE

Open Space

While the North Shore is richly endowed with recreational resources, only about 10 per cent of the 1,700 acres of recreation included in vestpocket parks, athletic fields, park strips, neighborhood playgrounds and similar open space is specifically designed for neighborhood use.

Our recommendations call for adding 122 acres to that total, much of which would be for neighborhood use. In addition, any new development would contribute to the total amount of public open space. In particular, the design guidelines would



RESIDENTIAL DEVELOPMENT PROPOSED BY PRIVATE DEVELOPERS 1964-1975

mandate that any new development along the shore provide a public waterfront promenade. This could be the beginning of a system of linked parks and privately financed public space ringing the North Shore waterfront.

The inadequate distribution of open space and the fiscal constraints on public acquisition underscore the importance of supplementing public actions with private development.

The wetland and natural areas in Powell's Cove should be consolidated by the City and mapped appropriately. The City has already begun to acquire wetlands in Udall's Cove and adjacent to Alley Park. The 26 acres in sites O, P and Q adjacent to the estuary at Alley Park should be acquired, as well as the 20 acres at Powell's Cove (in addition to the 24 the City already owns). In keeping with the State Wetlands Act of 1973, development should not be permitted within important wetland areas. Where recreational activities will not interfere with the ecology of the area, limited improvements may occur.

An eight-acre parcel at 217th Street and 24th Avenue, adjacent to the Cross Island Parkway, should be improved for public recreational use. There is very little public open space in Bay Terrace, the most densely developed North Shore community.

The 52 acres of surplus State property adjacent to the Creedmoor State Hospital should be acquired by the City and developed for horticultural and recreation uses. This land is considered excess property by the State and is the subject of special legislation. The City Planning Department is working with Community Boards 11 and 13, the Office of the Queens Borough President and the Parks, Recreation and Cultural Affairs Administration to develop a proposal for the conveyance and improvement of this property.

Proposed Waterfront Development Sites

Eleven sites with 147 acres on or adjacent to the waterfront have been proposed by private developers for new housing. Of these, six with a total of 115 acres are currently zoned for manufacturing (sites B, E, F, G, J and M on map on page 74), two with 10 acres are currently zoned residential (site A, R4; site H, R3-2), two with 16 acres are zoned commercial (C3) with a residential equivalency of R3-2 (sites C and D); and the six-acre site K is zoned partly for manufacturing and partly residential.

TABLE A. CHARACTERISTICS OF PRIVATELY PROPOSED POTENTIAL DEVELOPMENT SITES

community	college point								whitestone					bay terrace						doug
site	A	B	C	D	E	F	G	H	J¹	J²	J³	K	L	M	N	O	P	Q	R	
site area	2.67 ACRES	2.32 ACRES	8.10 ACRES	5.65 ACRES	9.70 ACRES	34.30 ACRES	7.86 ACRES	6.10 ACRES	10.67 ACRES	13.27 ACRES	7.06 ACRES	4.47 ACRES	6.30 ACRES	28.50 ACRES	22.80 ACRES	13.87 ACRES	3.9 ACRES	8.4 ACRES	17 AC	
area to bulkhead line	3.93 ACRES	4.30 ACRES	N.A.	7.73 ACRES	N.A.	N.A.	N.A.	N.A.	10.67 ACRES	13.67 ACRES	7.06 ACRES	5.96 ACRES	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N	
area to pierhead line	33.16 ACRES	28.82 ACRES	N.A.	11.2S ACRES	14.00 ACRES	41.7 ACRES	9.46 ACRES	N.A.	17.65 ACRES	11.00 ACRES	11.70 ACRES	13.10 ACRES	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N	
existing use	VACANT	VACANT	VACANT	VACANT	VACANT	VACANT	YACHT CLUB AND DRY DOCK FACILITIES	PART SPORTS CLUB PART VACANT	ACTIVE INDUSTRIAL USE	ACTIVE INDUSTRIAL USE	ACTIVE INDUSTRIAL USE	VACANT	VACANT INDUSTRIAL USE	VACANT	VACANT	VACANT	VACANT	VACANT	VAC	
existing zone	R-4	M1-1	C-3	C-3	M2-1	M2-1	M2-1	R3-2	M1-1	M1-1	M1-1	M1-1/R2	R3-1	M1-1	C4-1	R1-2	M1-2	R1-2	R	
physical characteristics	LEVEL WITH 120TH STREET GRADE WETLAND AND UPLAND VEGETATION (RECENT LANDFILL)	LEVEL WITH 120TH STREET GRADE NO WETLANDS (RECENT LANDFILL)	10' - 15' FALL FROM 115TH STREET GRADE TO SHORELINE UPLAND VEGETATION AT SOUTHERN END (RECENT LANDFILL)	10' - 15' FALL FROM 115TH STREET GRADE TO SHORELINE NO WETLANDS (RECENT LANDFILL) APPLICATION FOR MORE)	LEVEL WITH 5TH AVENUE GRADE NO WETLANDS (RECENT LANDFILL)	20' FALL FROM LAX AVENUE TO MID-SITE THEN LEVEL TO SHORE NO WETLANDS (RECENT LANDFILL)	LEVEL (AND SLIGHTLY ABOVE LAX AVENUE GRADE NO WETLANDS	LEVEL WITH SURROUNDING STREET GRADES NO WETLANDS	LEVEL WITH SURROUNDING STREET GRADES NO WETLANDS (NO RECENT LANDFILL)	20' FALL FROM 152ND STREET GRADE TO SHORE NO WETLANDS (NO RECENT LANDFILL)	LEVEL WITH 154TH STREET NO WETLANDS (NO RECENT LANDFILL)	18' FALL FROM RIVERSIDE DRIVE GRADE TO SHORE NO WETLANDS (RECENT LANDFILL APPLICATION FOR MORE)	LEVEL (EXISTING STRUCTURE ON SITE)	LEVEL EXCEPT FOR PLATEAU TO NORTH WITH 15' FALL TO EAST	20' FALL FROM 26TH AVENUE GRADE	LEVEL WITH SLIGHT FALL WEST TO EAST WETLAND AND UPLAND VEGETATION	SMALL POND AT NORTH END SLOPE FROM WEST TO EAST LARGE TREES UPLAND VEGETATION	LEVEL WITH LOW RIDGE TO WEST AND SOUTH SOME TREES UPLAND VEGETATION	120' FROM TO DO LASTO PARKW GRADE 24' F SOUTH NORTH	

☐ water-oriented sites N.A. = not applicable

Our analysis suggests that it is possible to accommodate new residential development on nine of these sites with 109 acres on an incremental basis over the next five to 10 years under specific planning guidelines and design controls. Adequate infrastructure could be provided prior to or concurrent with the completion of new housing. (See Implementation Alternatives, page 88.)

We do not recommend housing for sites G or J.

Site G, with approximately 7 acres, presently contains an active yacht club. The zoning is for moderately heavy (M2-1) manufacturing. The appropriate zone for the yacht club would be C3, a district designed for waterfront recreation and uses related to boating. (C3 also has a residential equivalency of R3-2.) While a change to C3 would technically allow housing, economic and policy considerations would make housing here extremely unlikely. The purpose of a zoning change should be to sustain the yacht club.

The 31-acre site J has active industrial uses that provide needed jobs and so should not be considered for new housing.

In order to allow new housing on five of the nine waterfront-oriented sites not needed for industry, it would be necessary to change the zoning of four manufacturing sites to residential and to change the site that is partly manufacturing and partly residential to all residential. These changes would require public hearings before the Planning Commission and Board of Estimate.

Four sites (A, C, D, H) are now zoned residential, or have a residential equivalency, and could theoretically be developed as-of-right. However, there is a strong probability that all would seek a mapping or zoning action in connection with development.

Site A is now zoned R4. It is immediately adjacent to site B which is zoned M1. The most economically beneficial development would involve the two sites as a joint project to share various utility and street improvement costs. To that extent, the most economically prudent development of site A hinges on the rezoning of site B.

Sites C and D zoned C3 (with a residential equivalent of R3-2) would similarly benefit if developed jointly, particularly as a single planned unit development which would require public approval.

Site H is zoned R3-2. However, residential construction is unlikely because the mapped street system reduces the development potential of the site. Changing the map would require public hearings.

TABLE B. CONDITIONS ADJACENT TO POTENTIAL DEVELOPMENT SITES

		community	college point								whitestone		bay terrace		douglaston
		site	A	B	C	D	E	F	G	H	K	L	M	N	R
CHARACTERISTICS OF ADJACENT LAND USES	north	land use	VACANT	INDUSTRIAL	VACANT	WATER	WATER	WATER	WATER	INDUSTRIAL SEWAGE TREAT. PLANT	WATER	EDUCATIONAL	ROADS/WATER	RESIDENTIAL	RESIDENTIAL
		type	SITE B	SUN OIL CO.	SITE D	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	J.H.S. 194	HIGHWAYS	GARDEN APTS.	ROW HOUSING
		height	N.A.	1-2 STORIES	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	3 STORIES (MAX.)	N.A.	6 STORIES	2 STORIES
		setback	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	30'-100'	N.A.	N.A.	20'
	south	land use	INST'L	VACANT	WATER	VACANT	RESIDENTIAL	RESIDENTIAL	RESIDENTIAL	RESIDENTIAL	RESIDENTIAL	RESIDENTIAL	RESIDENTIAL	RESIDENTIAL	RESIDENTIAL
		type	NURSING HOME	SITE A	N.A.	SITE C	DETACHED/ROW	DETACHED	DETACHED	DETACHED,	DETACHED	DETACHED	SEMI-DETACHED	DETACHED	DETACHED
		height	6 STORIES	N.A.	N.A.	N.A.	2-2 1/2 STORIES	1-2 STORIES	N.A.	1-2 STORIES	1-2 1/2 STORIES	2 STORIES	3 STORIES	1 1/2-2 STORIES	1 STORY
		setback	45'	N.A.	N.A.	N.A.	30'-65'	10'-60'	N.A.	0-17'	12'-25'	N.A.	80'	14'	N.A.
	east	land use	RESIDENTIAL	RESIDENTIAL	RESIDENTIAL	RESIDENTIAL	VACANT	WATER/VACANT	INDUSTRIAL SEWAGE TREAT. PLANT	VACANT PROPOSED PARK	RECREATION'L	RESIDENTIAL	INST'L/RES'L	COMMERCIAL BAY TERRACE SHOPPING CTR.	RECREATION'L
		type	ROW HOUSING	SEMI-DETACH.	DETACHED/ROW	ROW HOUSES	SITE F	N.A./SITE G			BEACH		JEWISH CTR.		GOLF COURSE
		height	2 STORIES	2 STORIES	1-2 1/2-2 STORIES	1 STORY	N.A.	N.A.	N.A.	N.A.	N.A.		1-2 STORIES	1-6 STORIES	N.A.
		setback	20'	18'	25-40/5-25'	25-40'	N.A.	N.A.	N.A.	N.A.	N.A.		16'-32'	N.A.	N.A.
	west	land use	WATER	WATER	WATER	WATER	WATER	VACANT	VACANT	RESIDENTIAL	RECREATION'L	RES'L/COMM'L SEMI-DETACH./RET'L	RECREATION'L	RESIDENTIAL MULTI-FAMILY (VILL. MALL)	RECREATION'L
		type	N.A.	N.A.	N.A.	N.A.	N.A.	SITE E	SITE F	DETACHED/ROW	YACHT CLUB		GOLF COURSE		ALLEY PARK
		height	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	1-2 STORIES	N.A.	1-3 STORIES	N.A.	21 STORIES	N.A.
		setback							N.A.	10'-25'	N.A.	25'-75'	N.A.	96'	N.A.
MAIN ADJACENT STREET		main adjacent street	120TH ST.	120TH ST.	115TH ST.	115TH ST.	5TH AVENUE	5TH AVE./ LAX AVE.	LAX AVE.	POWELL'S COVE BLVD.	RIVERSIDE DRIVE	CLINTONVILLE ROAD	BELL BLVD.	26TH AVE.	DOUGLASTON PARKWAY
		r.o.w.	50'	50'	60'	60'	70'	47'	20'	80'	50'	44'	64'	50'	88'
		housing type opposite	ROW HOUSING	SEMI-DETACH.	DETACHED/ROW	RESIDENTIAL	DETACHED/ROW	DETACHED	DETACHED	N.A.	DETACHED	SEMI-DETACH./RETL	JEWISH CTR. DETACHED HSG	DETACHED	N.A.
		height	2 STORIES	2 STORIES	1-2 1/2 - 2 STORIES	1 STORY	2-2 1/2 STORIES	1-2 STORIES	N.A.	N.A.	1-2 1/2 STORIES	1-3 STORIES	1-2 STORIES	1 1/2-2 STORIES	N.A.
		setback	20'	18'	25-40/5-25'	25-40'	30'-65'	10'-60'	N.A.	N.A.	12'-25'	25'-75'	16'-32'	14'	N.A.

water oriented sites N.A. = not applicable

POTENTIAL WATERFRONT HOUSING

Site	Existing Zoning	Maximum Units*
A	R4	275 (R4)
B	M1-1	330 (R4)
C	C3	235 (C3)
D	C3	225 (C3)
E	M2-1	750 (R4)
F	M2-1	2650 (R4)
H	R3-2	175 (R3-2)
K	M1-1/R2	460 (R4)
M	M1	2200 (R4)

*Based on gross floor area allowable and an average of four zoning rooms per unit. Public hearings would be required in every case for zoning changes or P.U.D. approvals. Commercial space included in any development would reduce the number of housing units.

If it were determined to permit residential development on all nine sites after public review and approvals and after the imposition of appropriate design controls and guidelines, and if the basis for density were existing, prevalent residential zoning patterns, then the maximum allowable development for the nine sites would be approximately 7,300 units (depending on unit and room sizes). Zoning density would be at R4 or R3-2 levels. However, zoning and mapping actions are needed or likely for all the sites. This gives the Commission the opportunity to ensure that development takes place only incrementally, rather than as a flash flood. The nature of the economy and the marketplace would place further restraints on the pace of development.

Non-Waterfront As-of-Right Development

Residential development could proceed as-of-right on three inland sites (L, N and R).

At present, the construction of model homes has taken place on site L in the Clearview section of Whitestone. The developer proposes to build 54 two-family and four one-family homes surrounding a common open space. Applications for mapping changes and certain large-scale development provisions were being considered by the City. The proposed development has been approved by the local community board.

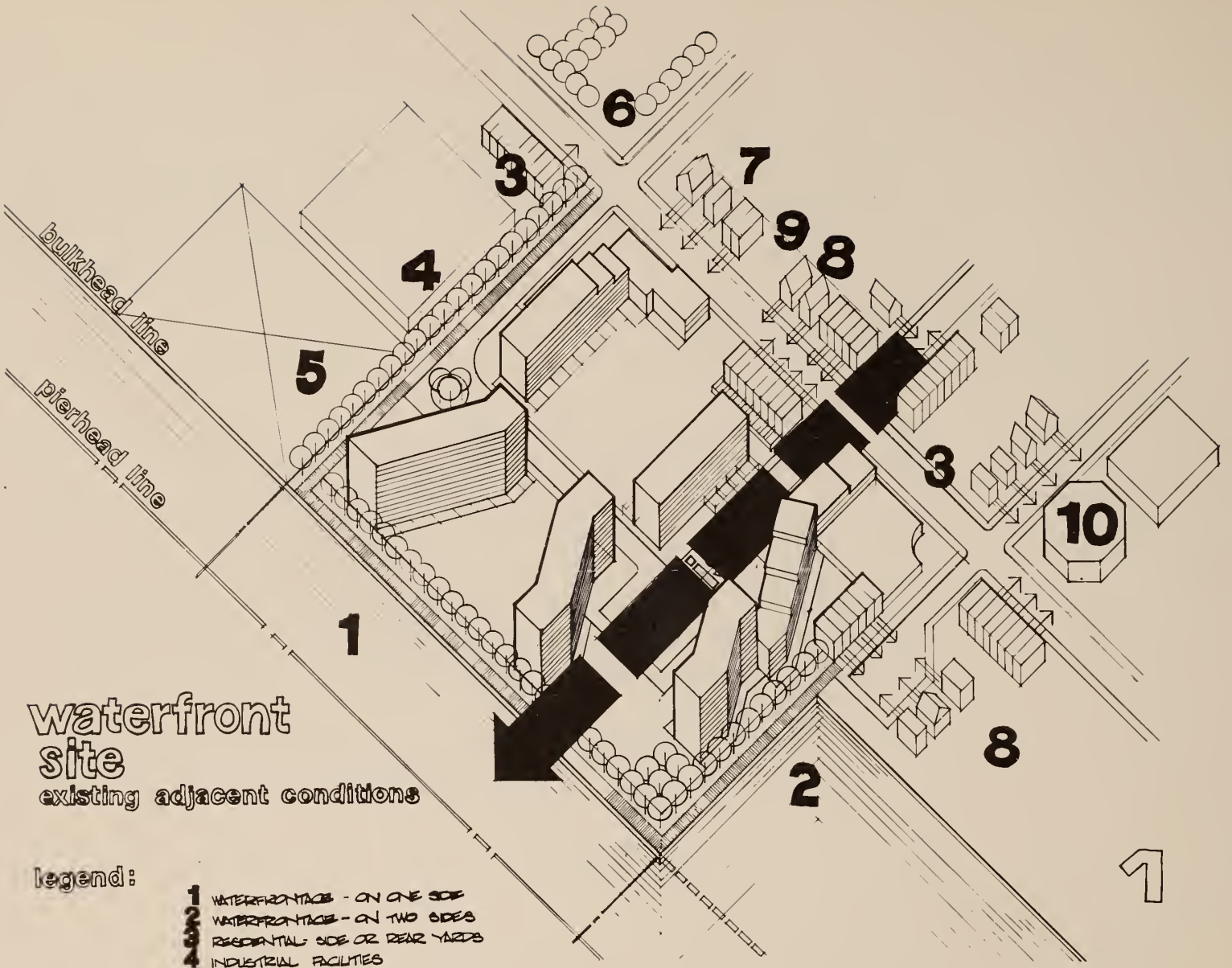
Site N in Bay Terrace had initially been proposed for some 1,200 units by the developer. Plans have now been scaled down to 600 units. The owners have said they will voluntarily file a restrictive covenant to reflect this and other conditions. No development is currently taking place.

Site R in Douglaston could be developed under the present zoning with a maximum of 700 units. Initial development is taking place on a portion of the site with two-family homes. Applications for large-scale designation and mapping actions are pending before the Planning Commission.

Design controls are being applied in the course of reviewing applications for sites L and R and would be applied should other owners seek zoning or mapping actions.

DESIGN CONTROLS

It is not sufficient for a large-scale development simply to comply with requirements for adequate sewage, utilities and other basic services--as important as such compliance may be. New development can have a profound and lasting impact on the surrounding neighborhood. The face a new development presents to the community--and the public opportunities seized or permanently foreclosed--are matters



waterfront site

existing adjacent conditions

legend:

1 WATERFRONTAGE - ON ONE SIDE
2 WATERFRONTAGE - ON TWO SIDES
3 RESIDENTIAL: SIDE OR REAR YARDS
4 INDUSTRIAL FACILITIES
5 DEVELOPABLE VACANT PARCELS
6 PARKS OR PLAYGROUNDS
7 SEMI-DETACHED OR DETACHED RESIDENTIAL
8 ROW HOUSING
9 VOIDS IN STREETWALL (NON-DEVELOPABLE VACANT LAND)
10 INSTITUTIONAL OR COMMERCIAL FACILITIES

of legitimate public concern.

This has particular relevance to the North Shore where new development could open or block off the waterfront to local residents, where neighborhood scale must be preserved, where landfill could result in extraordinary and destructive densities, where views of the water and green open areas should be protected.

We have analyzed the physical fabric of the North Shore and derived our design criteria from an appreciation of what is distinctive about the communities. Suggested standards are based upon the features of the neighborhoods where development has been proposed. The objective is to build in ways for new development to open the waterfront to all residents and to be compatible with the general style, quality and scale of the existing communities.

The comprehensive design criteria deal largely with the waterfront and treat the following:

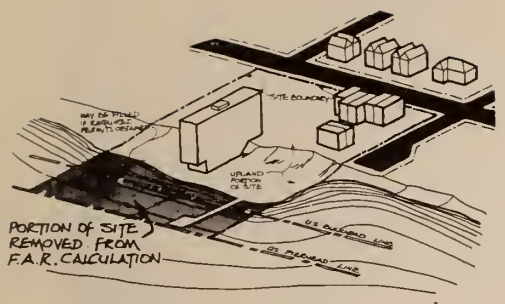
- the points at which land touches water, the quality of development proposed at such points, and the means of affording existing residents access to the shorefront; the degree to which existing and proposed streets permit both views of and access to the water and shore;

- the points at which different land uses meet and the implications of this relationship; and

- the basic physical configuration of proposed developments and the quality of spaces and buildings within them.

The design criteria are intended to be supplemented by standards contained in HOUSING QUALITY: A PROPOSAL FOR ZONING REFORM (published in July, 1973 by the City's Urban Design Council). These standards measure the impact of new developments on existing neighborhoods, the adequacy of on-site recreational space, security and safety in new developments, and the adequacy of the interior layouts of new developments. We recommend close adherence to the quality standards in evaluating any large-scale residential developments proposed within the North Shore Study Area.

Neighborhood scale would be preserved by height limit. Higher building (as seen in photo at right) is hidden behind low buildings when viewed from across the street.



Our recommendations call for:

- Waterfront Lot Redefinition

Land under water in the area between the U.S. Bulkhead Line to the U.S. Pierhead Line should not be included in calculating permissible floor area.

Private ownership of several parcels includes lands under water and extends to the U.S. Pierhead Line. These under-water lands are presently legal parts of the developer's total lot area. Such land could account for more than half of some potential development sites. (See Table A.) This means that some potential private development sites--if lands under water were included for zoning calculations--would allow the construction of dense high-rise buildings. These would clash with the scale and character of surrounding neighborhoods. Land under water beyond the bulkhead should not be counted in computing allowable density for new developments.

- Building Height Limit

Buildings of new developments should be located so that low-rise buildings are closest to adjacent neighborhoods while mid-rise or high-rise structures are set back toward the interior of the lot.

The study identifies two distinct "zones" within potential sites adjacent to existing residential areas. The zones run the entire width of any given site, parallel to the adjacent mapped streets. Zone I is a low-rise zone, with a minimum depth of 100 feet. It would allow one- and two-family detached or semi-detached houses, rowhouses, or 3 to 3-1/2-story garden apartments, and act as a transition between adjacent neighborhoods and mid-rise or high-rise structures which could only be built in Zone II. In no case could transition zone buildings exceed 35 feet in height.

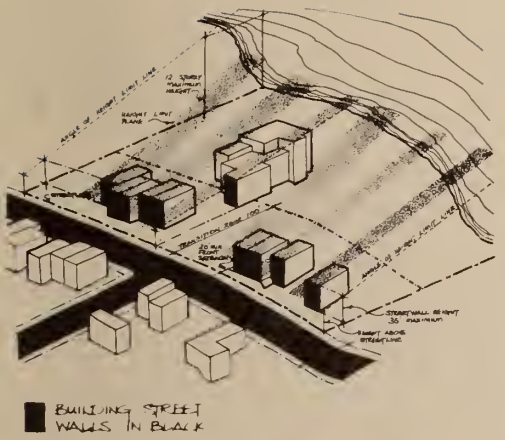
Floor area ratios (FAR) and open space ratios (OSR) within the transitional Zone I should be limited to those currently established for R3-2 residential districts.

As indicated in Table A, site depths vary from 200' to 1,260'. Application of the above guideline would thus generally permit only low-rise construction on sites of less than 300'-400' from the upshore property line to the shore or bulkhead line,

The average height of the buildings on the left would determine the height of any facing buildings that might be developed on the vacant parcel across the street.

where such sites are adjacent to existing residences. If the sites are adjacent to existing industrial or commercial uses, some mid-rise construction could be permitted within the transition zone. Buffer zones of a minimum 40 feet would be required along side lot lines, abutting commercial or industrial districts. (See Table B, page 78, for conditions adjacent to sites.)

New buildings and landscaping amenities in the transition zone would be physically similar to those in adjacent neighborhoods. Specifically, the maximum streetwall height within the transition zone would be determined by averaging the heights of buildings on the side of the street opposite the potential development. (Transition Zone streetwall height maximums are given in Table C, page 86.)



Maximum building height within both site zones would be defined by the establishment of a height-limit plane. For any site, the height limit plane would be determined by extending a line from a point 5'6" high (average eye level) at the opposite street line to the highest point of a structure within the transition zone. The height limit plane would be continued for the rest of the site by extending the line to the end of the site. This would control building heights in Zone II. The maximum building height permitted in any event would be 12 stories.

Building height would be determined by the height limit plane or the height maximum, whichever is less. The major purpose of the height maximum is to ensure that new mid- or high-rise buildings do not compete for visual prominence with recognized landmarks within older neighborhoods, such as church steeples, schools with high floor-to-floor dimensions, or other visual reference points. Furthermore, this requirement would also reduce the visibility of new mid- or high-rise construction from points within older neighborhoods. In certain of the sites, the terrain would also help. The terrain at six of the sites falls from 10 to 20 feet, from the upshore property edge to the shoreline. (One upland site is approximately 120 feet below the adjacent community.) These grade differences mean that new buildings on these sites would appear lower and consequently more compatible when viewed from surrounding upland areas.

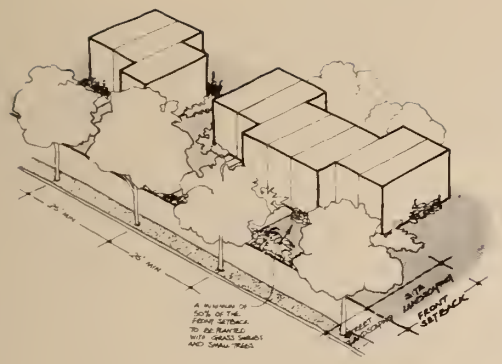
The building heights are workable limits. They permit flexible design solutions and prevent tall towers.

A minimum setback of 20 feet is required for buildings within the transition zone. Existing residential street frontages touching development sites average 18 to 20 feet. Application of the setback requirement to new developments

TABLE C. DESIGN RECOMMENDATIONS

community	college point								whitestone		bay terrace		douglaston
site	A	B	C	D	E	F	G	H	K	L	M	N	R
area of site for f.a.r. calculations	3.93 ACRES	4.30 ACRES	8.10 ACRES	7.73 ACRES	9.70 ACRES	34.3 ACRES	4.30 ACRES	6.18 ACRES	5.96 ACRES	6.20 ACRES	28.5 ACRES	22.8 ACRES	17.9 ACRES
access/view corridor	25TH AVE.	25TH AVE.	9TH AVENUE	9TH AVENUE	COLLEGE PL.	122ND STREET	N.A.	6TH AVENUE	15TH PLACE	N.A.	N.A.	N.A.	N.A.
right-of-way	80'	80'	50'	50'	50'	60'	N.A.	60'	50'	N.A.	N.A.	N.A.	N.A.
setback	5'-16'	5'-16'	10'-2-'	10'-20'	10'-35'	15'-22'	N.A.	10'-20'	15'	N.A.	N.A.	N.A.	N.A.
length of shorefront margin	360'	400'	700'	380'	365'	1350'	305'	N.A.	890'	N.A.	N.A.	N.A.	N.A.
required buffers	N.A.	SUN OIL CO. TO NORTH	N.A.	N.A.	N.A.	N.A.	SEWAGE TREAT PLANT TO E.	SEWAGE TREAT PLANT TO N.	N.A.	N.A.	CLRVIEW EXPY TO WEST. CR. IS. PKWY TO NORTH	SHOPPING CTR TO THE EAST	N.A.
ZONE 1 CHARACTERISTICS — main access street — street	120TH ST.	120TH ST.	115TH ST.	115TH ST.	5TH AVENUE	5TH AVENUE/ LAX AVENUE	LAX AVENUE	POWELL'S COVE BLVD.	RIVERSIDE DRIVE	CLINTONVILLE ROAD	208TH PL.	26TH AVENUE	DOUGLASTON PARKWAY
main access street — minimum setback from lot line	20'	20'	25'	30'	30'	35'	20'	20'	20'	25'	20'	20'	20'
main access street — maximum building/ street wall ht.	20'	20'	20'	20'	25'	25'	35'	35'	20'	20'	35'	25'	35'
secondary access street — street	25TH ROAD	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	127TH AVE. & 6TH AVENUE	158TH STREET	17TH ROAD	N.A.	N.A.	N.A.
secondary access street — minimum setback from lot line	N.A.	N.A.						20'	20'	20'			N.A.
secondary access street — maximum building/ street wall ht.	N.A.	N.A.						35'	35'	35'			N.A.

water-oriented sites N.A. = not applicable



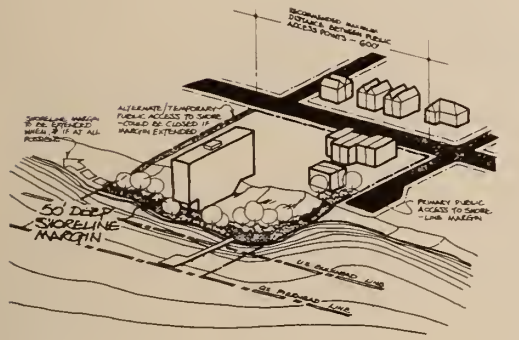
would help to ensure a compatible street line in older neighborhoods. Within the setback, new planting would be required to buffer and soften new developments. Such planting would also enhance the existing street character. Landscaping amenities within this area would include lawns, ground cover and shrubbery.

- Street Trees

Street trees, planted between the curb and property line, are recommended.

Compliance with these standards would require the planting of one street tree every 25 linear feet of sidewalk adjoining the site. To qualify, a street tree would have to: 1) be at least three and one-half to four inches in circumference; 2) be planted in top soil at least three feet, six inches deep; 3) have a minimum planting bed of 25 square feet; 4) have tree guards at least three feet high; and 5) be protected by a maintenance bond.

- Shorefront Margin



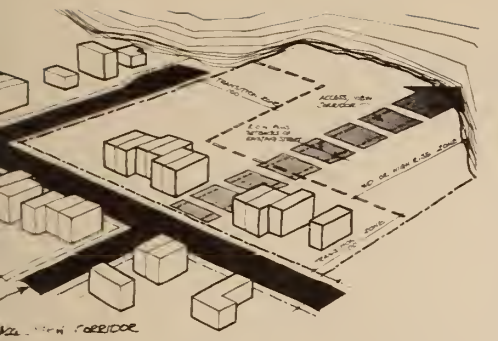
A shorefront margin, running the length of proposed development sites, is recommended to allow public use of the presently inaccessible shorefront.

This shorefront margin would be 50 feet wide, with a 20-foot wide publicly accessible walkway built at least five feet above mean sea level, and a 30-foot wide landscaped buffer separating the walkway from new development. No construction would be permitted within this margin, except water-oriented facilities allowed by the zoning ordinance in C3 districts. The configuration and location of the scenic walkway would follow standards and regulations of the Department of Buildings and the Department of Ports and Terminals.

The City Planning Commission would review detailed treatment of the walkway for overall design unity and continuity with adjacent walkways. The review would include an analysis of the:

- means of public and private access to the walkway and to shorefront uses such as fishing docks or marinas;
- details of street furniture such as lighting fixtures, seating, planters and guardrails.

NEW COMMUNITY ACCESS TO THE WATERFRONT

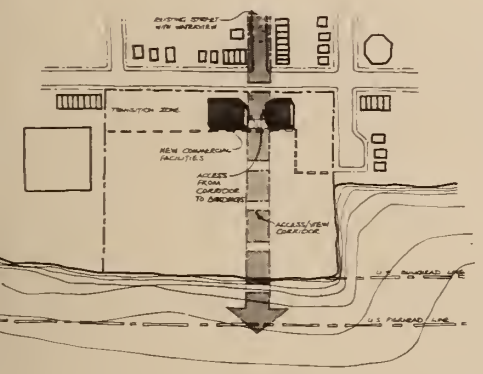


- Access/View Corridors

The extension of specified street rights-of-way through potential sites to the shore would guarantee the retention or creation of upland water views and, where feasible, provide public access from within communities to the shore.

The width of each "access view corridor" would be determined by the existing street right-of-way width and the setbacks on either side of the street. (These are detailed in Table C.) No new buildings would be permitted in these corridors where they could obstruct views of the waterfront. The corridors would be physically connected to the scenic walkways. Where the corridor bisects a site, alternate means of public access could be allowed to preserve the unity of the development. The corridors would contain a paved area at least 12 feet wide throughout its length to allow for the passage of emergency or service vehicles.

It is recommended that access points to the scenic walkway be no more than 600 feet apart. (See map, opposite, for locations of proposed access/view corridors and shoreline margins.)



- Location of Commercial Facilities

Within certain potential development sites, commercial facilities available to both project and community residents are recommended and should be so located as to maximize access from existing neighborhoods

The location of commercial facilities, like the establishment of transition zones and height limit planes, is derived from a physical design framework for each community. A community design framework includes: a) neighborhood boundaries; b) town center, or major shopping district; c) residential structure types; d) major pedestrian and vehicular paths; and e) individual landmarks of both architectural and historical importance.

Commercial facilities should be located on potential development sites so as to:

- ensure that local residential streets remain unencumbered by shopper traffic; and
- increase visibility of new retail facilities from existing ones by locating them adjacent to major pedestrian and vehicular routes in any neighborhood.

- Parking

It is recommended that on-site, off-street parking be provided for 1.25 times the total number of units to be built. It is further recommended that at least one space for each dwelling be in a covered facility.

Covered parking would be provided for at least 80 per cent of the total number of cars to be accommodated.

- Exterior Design

The exterior design of all proposed new buildings should include an adequate amount of planted outdoor space within private developments. All new developments should include building shapes and layouts that provide visual interest and variety.

On-site landscaping would add interest to the outside appearance of buildings. This includes the planting of small trees and shrubs within the 20' setback of the transition zone.

Techniques to achieve variation in building shapes and layouts include:

- variation of building height and location (staggered buildings) within a development site;
- minimum regularity of facade treatment;
- changes in exterior building materials;
- balconies, separate apartment entries and private patios to diminish the appearance of mass and bulk in higher buildings.

It is recommended that buildings within the transition zone be located so as to comply with the "solid/void ratio" and "frequency of mass articulation" represented in the main street adjacent to the potential development sites. The "solid/void ratio" is the total built-up length of an existing street wall divided by the total spaces between buildings. The "frequency of mass articulation" is the average distance from center line to center line of existing buildings, divided by the average distance between buildings.

These two criteria would require "breaks" in the facade of new developments which front on existing neighborhoods. Older North Shore communities contain an interesting mixture of building types and lot sizes, often on single blocks. To add interest and variety to transition zone buildings in keeping with the built-up neighborhood, it is recommended that indentations of at least three feet in depth be made in the new building face at intervals that reflect the spacing and facade of existing structures.

INFRASTRUCTURE IMPROVEMENTS (PUBLIC)

Transportation

Express bus service running directly from new large-scale developments to Midtown Manhattan should be provided where feasible. This would call for extending the exclusive lane of the Long Island Expressway and the use of other techniques that give buses preference in traffic. Every effort should be exerted to implement franchise and traffic policies that would facilitate such service.

Entrance ramps should be signalized on the Whitestone Expressway at 20th Avenue and the Cross Island Parkway at 156th Street. Cars would be permitted to enter at intervals so as not to congest traffic flow.

Large-scale development in College Point should be accompanied by construction of a needed new north-south bypass and improvement of 14th Avenue. One possibility is to have each development make a monetary contribution to recompense the City for such road expenditures.

In their narrower sections west of the College Point Industrial Park, 18th Avenue and 20th Avenue should be made one-way streets in opposite directions. This would encourage their use by heavy trucks and would keep such vehicles out of residential areas.

The exit ramp from the Cross Island Parkway that permits a connection with the Clearview Expressway should be improved to increase Parkway capacity and eliminate the potential dangers caused when lines of cars on the ramp extend into moving lanes.

The diamond interchange at 26th Avenue and the Clearview Expressway is recommended to be completed to encourage increased use of the presently underutilized freeway.

STREET AND SEWER IMPROVEMENTS

The existing intersection capacity of Willets Point Boulevard and 212th Street could be increased by the creation of left turning bays and appropriate traffic signals at this intersection.

All new residential developments should be required to provide 1.25 parking spaces for each dwelling unit which would severely limit the need for on-street parking, a problem throughout much of this area.

Routes should be established and built to complete the bikeway system. This system, now about half complete, should be located in the proposed shorefront margin and use interior streets only when shorefront areas are inaccessible. (See map, New Community Access to the Waterfront, page 88.)

Sewers

The pumping station at Roe Place in Bay Terrace is currently operating at about its peak capacity. Any additional flow generated by new large-scale residential development on the former General Telephone and Electronics site (M) will require increasing pump capacity. The Department of Water Resources recommends the installation of a new pump and force main.

Douglaston's main pumping station, at Northern Boulevard and 227th Street, cannot absorb any increased sanitary sewage. The Department of Water Resources recommends the upgrading of the station with the addition of a new 3,500 gallons per minute (G.P.M.) pump and a 24-inch force main.

Sewage disposal in the communities of Douglaston Bay and Douglaston Manor is by septic tank systems, many of which are failing. The need for public sewers in this area is immediate.

The pumping station at DeLong Street should be upgraded to meet projected sewer needs. The Department of Water Resources has recommended an additional 1,500 G.P.M. pump and a new 16-inch force main.

With needed repairs and proper cleaning, regulator C at 138th Street and 11th Avenue is considered adequate.

Schools

Public elementary and intermediate schools are generally very underutilized. No parochial school closings are anticipated in the study area. If a closing were to occur, however, the presently underutilized public schools could pick up whatever slack such closings would create. Only in College Point, where a large proportion of students attend parochial schools, would such a closing possibly overtax neighborhood public schools. In such an event, the Board of Education would have the option of leasing the former parochial school buildings.

At present high school capacity does not meet enrollments in Queens. With the completion of scheduled high school projects, capacity should be slightly below enrollments. Large scale developments, since they generate relatively few students of high school age, should not present an undue burden.

Health

New York State should be encouraged to approve the building expansion plans proposed by the three voluntary hospitals on the North Shore (Flushing, Booth Memorial and Long Island Jewish). All are highly utilized, especially in medical-surgical bed occupancy. All three hospitals are planning major building programs to provide for the future health needs of North Shore residents. Approval would permit utilization to be reduced to an acceptable level and would help to provide for additional population growth. The plan for a new Children's Hospital at Long Island Jewish Hospital also calls for programs not currently available in Queens.

An emergency ambulance outpost is recommended for Bayside or Whitestone. This might be provided by the Emergency Medical Service of the Health and Hospitals Corporation. These communities are remote from Flushing Hospital and from Long Island Jewish Hospital, the two institutions that now dispatch ambulances in emergencies.

INFRASTRUCTURE IMPROVEMENTS (PRIVATE)

All waterfront sites should be required to regulate their own flows, that is, to separate storm water from sanitary sewage on-site and provide retention structures until discharge into the existing system is permissible.

Where necessary, the sewage flows from large scale developments should bypass the existing pumping stations and enter the sewer system at a later point. If they cannot build their own facilities, these developments should contribute to a common fund for purposes of upgrading an existing station where necessary.

Commercial Facilities

The development of Sites F and M is recommended to include commercial space. Site F should contain no more than 40,000 square feet of shopping for residents in the immediate vicinity. A neighborhood shopping center of approximately 125,000 square feet is recommended at Site M for existing and projected needs in the Bay Terrace area.

IMPLEMENTATION ALTERNATIVES

There are two basic approaches for implementing the design and planning guidelines outlined in this comprehensive planning report. One involves the creation of a special zoning district covering the North Shore. The other would treat each proposed development on an individual basis, incorporating the design guidelines and other controls in a restrictive declaration agreed to by the developer. Each approach has advantages and drawbacks. The two approaches should be considered by the community boards as they review the design guidelines and other planning criteria. Public infrastructure improvements would be funded mainly in the capital budget.

- Special Waterfront Zoning District

Incorporating the recommendations into a special waterfront zoning district would have the advantage of formally codifying the design guidelines. However, it could be seen as encouraging unwanted redevelopment of existing areas since the district's sweep would be broader than its objectives. It would cover all the waterfront sites; it would also cover areas which clearly should not be--and are not now--subjected to any redevelopment pressures. Since it would cover all the sites and communities at once, it could be seen as triggering wholesale assemblages and development activity.

The special zoning district itself would require approval of the City Planning Commission and Board of Estimate. However, it could be drawn up either to allow development that conforms to the requirements of the special district to proceed without further approvals--or it could require further hearings and special permits in each instance.

- Existing Mechanisms and Restrictive Declarations

Most--and probably all--of the sites where development would occur would require or want some public action. The applications for zoning or mapping changes submitted to the City Planning Commission would be reviewed in the context of this comprehensive planning report with the local planning boards. Design guidelines and planning criteria could be tailored to work best for each site. The planning and design guidelines could then be written into an agreement (restrictive declaration) that runs with the land for each development. (A model restrictive declaration is shown on page 99 of the appendix.)

This has the advantage of being comprehensive in sweep and approach, but incremental in application. Since it could be worked out on a site by site basis, specific and unique problems could be dealt with individually in the broader context of the North Shore and community needs. It has the disadvantage of seeming less absolute than the special zoning route--those waterfront sites now zoned residential which neither needed nor wanted mapping or other zoning modifications could theoretically proceed as-of-right. However, our analysis indicates that some form of public action, requiring public hearings, would be sought for all sites--either to make development possible or practicable.

Appendix

Model Declaration

Table A. Demographic and Housing Characteristics

B. Current Capital Budget Projects

C. Recommended New Capital Improvements

D. Sanitary Sewer Capacities

E. School Utilization

F. Recreational Open Space Resources

G. Coastal Vegetation

Model Declaration

THIS DECLARATION is made by having an office at , hereinafter called the "Declarant."

WITNESSETH:

WHEREAS, the Declarant is the owner of certain real property in the Borough of Queens, City and State of New York, Block_____, Lot_____, which real property hereinafter called the "Subject Property" is further described herein; and

WHEREAS, the Declarant desires to restrict further the manner in which the Subject Property may be developed, maintained, and operated, intending these restrictions to benefit all the land lying within one-half (1/2) mile of the Subject Property, including all such land owned by New York City; and

WHEREAS, the Declarant represents and warrants that no restrictions of record on the use of the Subject Property nor any present or presently existing future estate or interest in the Subject Property, nor any lien, obligation, covenant limitation or encumbrance of any kind precludes, presently or potentially, the imposition of the restrictions, covenants, obligations, easements, and agreements of this Declaration or the development of the Subject Property in accordance therewith.

NOW THEREFORE, the Declarant does hereby declare that the Subject Property shall be held, sold, conveyed and occupied subject to the following restrictions and obligations which are for the purpose of protecting the value and desirability of the Subject Property and which shall run with such real property, binding every party having any right, title or interest in the Subject Property or any part thereof and binding all heirs, successors and assigns.

ARTICLE I
SUBJECT PROPERTY

The Subject Property is described as follows:

ALL that certain lot, piece or parcel of land situate, lying and being in the Borough and County of Queens, City and State of New York, bounded and described as follows:

Beginning at a point (metes and bounds description to be supplied)

ARTICLE II
ACCESS-VIEW CORRIDORS

An access-view corridor through the Subject Property shall be provided as indicated on the preliminary site plan, annexed hereto as Exhibit "A", to allow a continuous scenic view of the shorefront which shall be unobstructed from its base to the sky.

The Declarant shall develop and maintain the access view corridor to provide a pedestrian connection as indicated on Exhibit "A" to the shorefront margin, defined in Article III.

ARTICLE III
SHORELINE MARGIN

A shoreline margin, 50 feet wide, shall be provided along the entire length of the Subject Property as indicated on Exhibit "A". The Declarant shall construct and maintain the shoreline margin.

The shoreline margin shall consist of a 20 foot pedestrian walkway and a 30 foot landscaped margin separating the walkway and the development constructed on the Subject Property.

The shoreline margin shall be accessible to the public.

ARTICLE IV
DEVELOPMENT AND HEIGHT OF BUILDINGS

Any development which occurs on the Subject Property within one hundred feet (100') of a perimeter street line bordering pre-existing development shall have a building set back of no less than ____feet from such street line. (See chart below) Perimeter streets are identified on Exhibit "B" annexed hereto.

The height of any "street wall" (as defined in Section 12-10 of the Zoning Resolution) or portion thereof facing a perimeter street which is entirely visible along a line drawn perpendicular from such street shall not exceed the height established in Table A.

The height of any other building wall or portion thereof which is behind a constructed "street wall" shall not penetrate the "height limit lines". For any new development, the "height limit lines" are lines which begin at a height above street line as established in Table A and extend perpendicular to the street line at a slope established by joining the top elevation of the "street wall" facing the perimeter street as illustrated herein. Such "height limit lines" shall continue for the entire depth of the site.

The intent of this provision is to buffer the visual impact from the perimeter streets of taller buildings occurring behind the constructed "street wall". Where such taller buildings are to be constructed, a low rise element must precede them occurring no less than 20 feet from a perimeter street (see Setbacks, Table "A"), and constructed in accordance with the restrictions herein. The following table indicates required dimensions for particular sites:

TABLE "A"

Site	Perimeter Street	Maximum Front Wall Height Above Curb Level	Minimum Required Setback From Streetline	Sky Exposure Pl Above Street Li
A	120 St.	20'	20'	17.0'
B	120 St.	20'	20'	16.0'
C	115 St.	20'	25'	16.0'
D	115 St.	20'	30'	15.5'
E	5th Ave.	25'	30'	19.5'
* F	5th Ave.	25'	30'	19.5'
* F'	Lax Ave.	25'	35'	17.0'
* H	6th Ave.	35'	20'	28.5'
* H'	127 St.	35'	20'	16.5'
K	Riverside Dr.	20'	20'	16.0'
M	208 Place	35'	20'	28.0'

*These sites are bounded by two perimeter streets.

Declarant covenants that any development which occurs on the Subject Property within one hundred feet (100') of the perimeter street line bordering pre-existing development shall be developed according to the bulk restrictions of an R3-2 zoning district, except as limited in this instrument.

Declarant further covenants to commence construction of any buildings within this one hundred foot (100') area prior to applying to the Department of Buildings for any permits for the balance of the Subject Property.

ARTICLE V
PARKING

Declarant shall provide no less than 1.25 parking spaces per dwelling unit. Three hundred (300) square feet of unobstructed standing or maneuvering area shall be considered one parking space. The lease or sales agreement for any dwelling unit shall include one parking space at no additional cost and shall require the residents of said dwelling unit to park in the provided parking space and not on the public streets. Declarant may charge a reasonable fee for any additional parking spaces used by residents. No less than 80% of the parking spaces provided on the Subject Property shall be enclosed.

ARTICLE VI
RECREATION SPACE

Declarant shall provide recreation space to be located indoors, outdoors or in covered open space on the Subject Property, the use of which shall be free to the residents of any development on the Subject Property. The development should provide:

Child Use Space such as tot lots, playground or day care facilities	20 square feet per child
Adult Use Space such as health club, solariums or craft shops	10 square feet per adult
Mixed Use Space such as meeting rooms, tennis courts or other community facility space	20 square feet per person

Free Use Space such as rooftop terraces, private terraces on grade, large open play areas and buffer areas	Total site area multiplied by a given factor, set forth in this Article.

In order to compute the total amount of recreation space to be provided, the population of the Subject Property shall be calculated as follows:

Bedrooms/dwelling unit	Adults	Children
0	1	0
1	2	0
2	2	1
3	2	2
4	2	3
5	2	4

The recreation factor used for calculating the Free Use Space varies with the density of the development of the Subject Property.

Density (dwelling units per acre)	Recreation Factor
25	.55
35	.52
47-56	.47
91-100	.63

ARTICLE VII
DENSITY

Declarant shall construct no more than _____dwelling units per acre.

ARTICLE VIII
PLANS

Declarant shall submit plans indicating the position of any development to the shoreline margin, access-view corridors and open space, to the City Planning Commission for its administrative review and approval prior to applying to the Department of Buildings for any foundation or building permits.

ARTICLE IX
RECORDATION, MODIFICATION AND ENFORCEMENT

This covenant runs with the land and shall be so construed.

Declarant covenants and agrees to file and record this Declaration in the Office of the City Register, Queens County, and index it against the Subject Premises described herein and to provide the Department of City Planning with a copy of said Declaration certified by the City Register.

Declarant recognizes that the City of New York and the New York City Planning Commission, or the public agencies succeeding to its jurisdiction, are interested parties to this Declaration, and may bring actions to enforce same, and no cancellation, amendment or modification will be made without its consent and/or approval.

Notwithstanding any other provision of this Declaration, the New York City Planning Commission or the public agencies succeeding to its jurisdiction, shall after public hearing have the power to cancel, amend or modify, in whole or in part, the requirements imposed by the Declaration, at the request of the owner of all or any part of the Subject Premises if it finds that such cancellation or modification would not be against the public interest and no other consent shall be required.

Declarant covenants and agrees to submit and file with the Department of Buildings a copy of this Declaration when filing any application affecting the Subject Premises.

IN WITNESS WHEREOF, the Declarant has caused this Declaration to be signed the day and year first above written.

_____

ACKNOWLEDGMENT

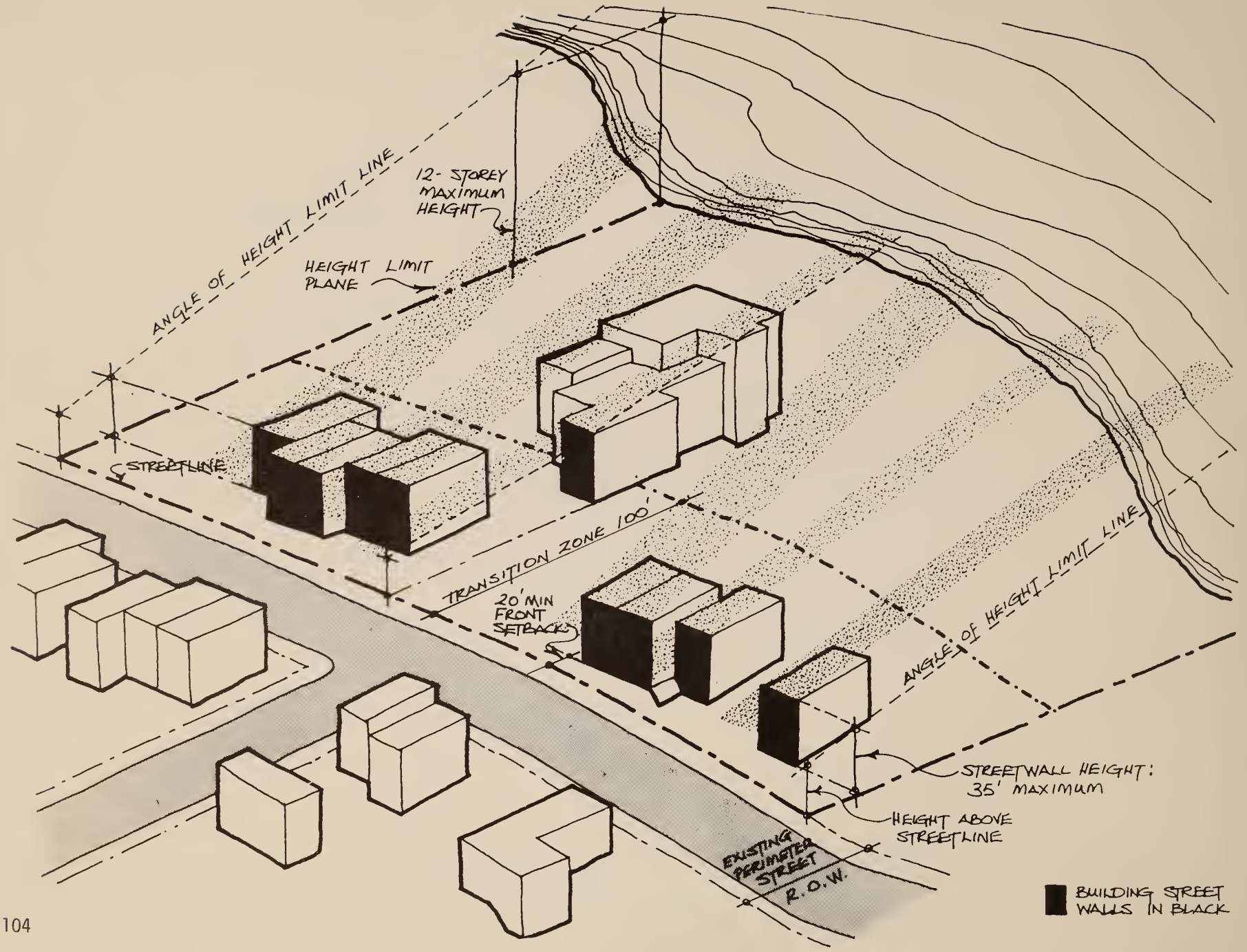

ANGLE OF HEIGHT LIMIT LINE
12- STOREY MAXIMUM HEIGHT
HEIGHT LIMIT PLANE
STREETLINE
TRANSITION ZONE 100'
20' MIN FRONT SETBACK
ANGLE OF HEIGHT LIMIT LINE
STREETWALL HEIGHT: 35' MAXIMUM
HEIGHT ABOVE STREETLINE
EXISTING PERIMETER STREET R.O.W.
BUILDING STREET WALLS IN BLACK

EXHIBIT "B"

	SITE	PERIMETER STREET
	A	120th St., from 25th Rd. north to 25th Ave.
	B	120th St., from 25th Ave. north to 23rd Ave.
	C	115th St., (Powell's Cove Blvd.) from 12th Ave. north to 9th Ave.
	D	115th St., (Powell's Cove Blvd.) from 9th Ave. north to Poppenhusen Ave.
	E	5th Ave. from College Pl. east to 122nd St. (College Pt. Blvd.)
*	F	5th Ave. from College Pl. east to 122nd St. (College Pt. Blvd.) and
*	F'	Lax Ave. from 122nd St. to 125th St.
*	H	6th Ave. from 129th St. east to Powell's Cove and
*	H'	127th St. from 6th Ave. north to Powell's Cove Blvd.
	K	Riverside Dr. from 154th Pl. east to 158th St.
	M	208th Pl. from 15th Rd. north to Bell Blvd. (Cross Island Pkwy. service drive)

*These sites are bounded by two perimeter streets.

Table A

Demographic and Housing Characteristics

The sources for the following data, unless otherwise noted, are the U. S. census of 1960 and 1970.

1. Population

Population, total persons in 1970 and 1973 (estimated), and percent change 1960 to 1970, and 1970 to 1973.

	N.Y.C.	Queens	College Point	Whitestone	Bay Terrace	Douglaston-Little Neck
1970	7,894,862	1,986,473	21,248	15,879	10,691	27,348
Change 1960-70	+1.4	+9.8	+16.4	+5.2	+175.0	+6.3
1973 (Est.)	N.A.	1,999,224	21,744	15,949	13,107*	27,526
%Change 1970-'73 (Est.)	N.A.	+0.6	+2.3	+0.4	+22.6	+0.7

* includes Belshire Manor development; does not include Village Mall development

Sources: U. S. Census Map, Queens Chamber of Commerce, Sanborn Map Company, Department of City Planning.

2 Employment and Income

Occupation type, by percent of employed persons, 1970.

	N.Y.C.	Queens	College Point	Whitestone	Bay Terrace	Douglaston-Whitestone
Professionals Managerial Technical	23.6	23.5	17.1	34.8	46.3	39.0
Sales	7.3	7.9	5.2	11.0	17.4	14.5
Clerical	27.0	28.9	27.9	25.5	20.6	23.8
Craftsmen	10.2	11.6	18.3	10.5	6.4	8.1
Operatives	15.0	13.2	16.1	8.3	5.5	5.8
Laborers	3.4	3.1	3.8	2.5	0.7	1.7
Service	13.5	11.8	11.6	7.4	3.0	7.1

3 Housing

Tenure, percent of occupied housing units, 1970

	N. Y. C.	Queens	College Point	Whitestone	Bay Terrace	Douglaston-Little Neck
Own	22.9	41.9	60.9	57.7	46.7	73.5
Rent	77.1	58.1	39.1	42.3	53.3	26.5

Median value of a single-family house without a business and median monthly rent, 1970.

	N.Y.C.	Queens	College Point	Whitestone	Bay Terrace	Douglaston-Little Neck
House	$28,007	$28,226	$26,995	$33,667	$50,686	$37,710
Rent	$114	$131	$123	$210	$273	$177

Net increase in housing units, 1960 to 1970, and 1970 to 1973 and percent change.

	N.Y.C.	Queens	College Point	Whitestone	Bay Terrace	Douglaston-Little Neck
Total units, 1973 (Est.)	N.A.	707,544	6,864	5,211	4,494	8,719

		N.Y.C.	Queens	College Point	Whitestone	Bay Terrace	Douglaston-Whitestone
Increase 1960 to 1970	#	159,405	86,149	1,003	591	2,616	1,457
	%	5.8	16.0	17.6	12.9	240.0	20.2
Increase 1970 to 1973	#	N.A.	4,473	157	22	792	57
	%	N. A.	+0.6	+2.3	+0.4	+22.6	+0.7

Sources: U. S. Census Bureau and Sanborn Map Co.

Housing units by number of units in structure, by percent, (1970).

# of units in structure	N.Y.C.	Queens	College Point	Whitestone	Bay Terrace	Douglaston-Whitestone
1	11.9	26.1	36.5	51.4	10.1	52.1
2	15.1	24.3	50.8	10.5	30.0	27.1
3-4	8.0	7.6	6.2	3.0	1.5	5.5
5-49	36.0	18.4	6.0	21.3	3.3	3.4
50+	29.0	23.6	0.5	13.7	55.1	11.9

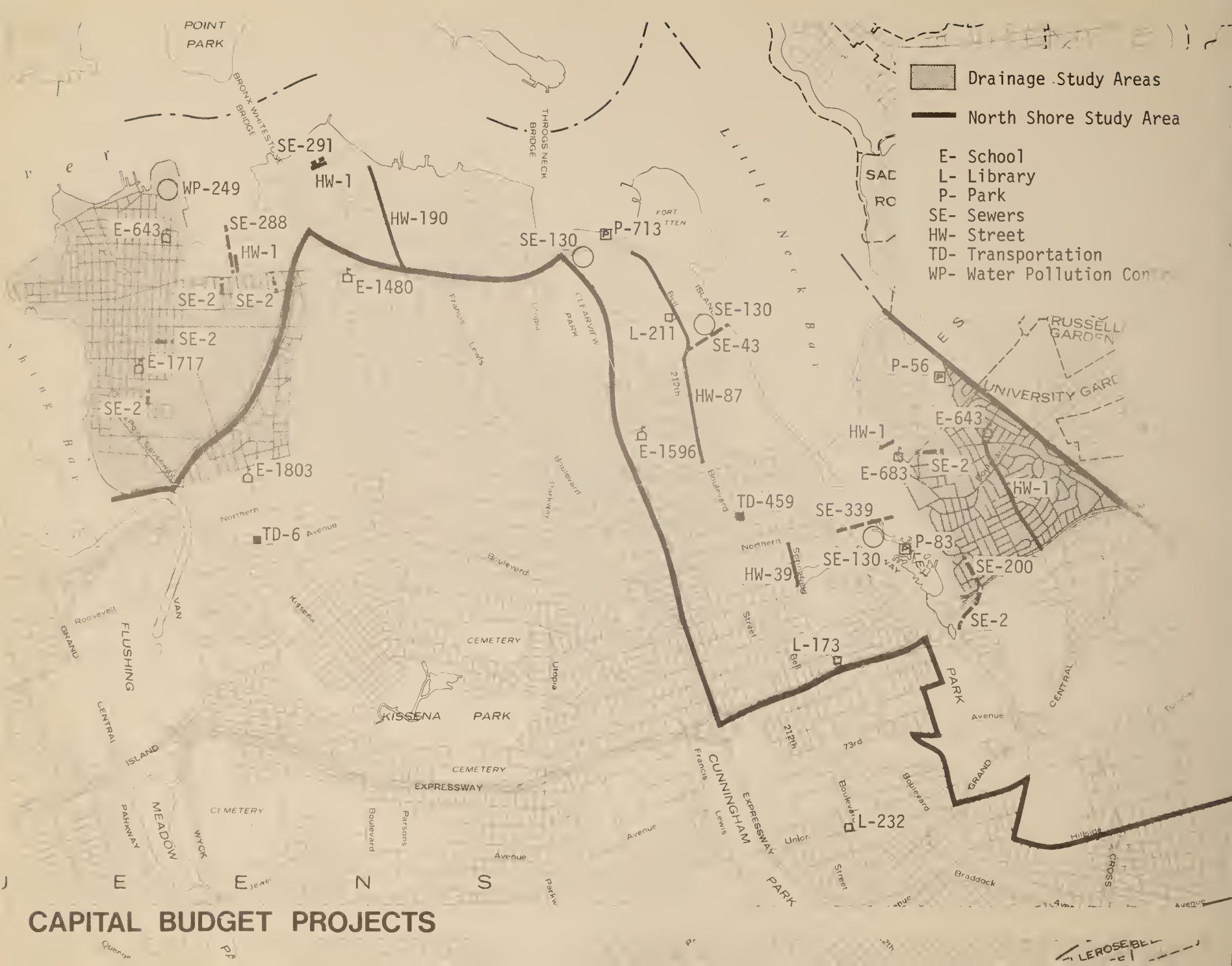

Drainage Study Areas
North Shore Study Area
E- School
L- Library
P- Park
SE- Sewers
HW- Street
TD- Transportation
WP- Water Pollution Con
POINT PARK
BRONX WHITESTONE BRIDGE
THROGS NECK BRIDGE
SE-291
HW-1
WP-249
E-643
SE-288
HW-190
SE-130
P-713
FORT TTEN
E-1480
SE-2
SE-2
SE-2
E-1717
SE-2
E-1803
CLEARVIEW PARK
Francis Lewis
Little Neck Bay
L-211
SE-130
SE-43
212th
HW-87
E-1596
TD-459
SE-339
P-83
SE-130
HW-39
SE-200
SE-2
L-173
RUSSELL GARDEN
P-56
UNIVERSITY GARD
E-643
HW-1
E-683
SE-2
HW-1
Northern Boulevard
TD-6 Avenue
Roosevelt Avenue
GRAND CENTRAL PARKWAY
VAN WYCK EXPRESSWAY
FLUSHING MEADOW
CENTRAL ISLAND
KISSENA PARK
CEMETERY
CEMETERY
CEMETERY
EXPRESSWAY
CUNNINGHAM EXPRESSWAY
L-232
73rd Avenue
Union Street
Braddock Avenue
Hillside Avenue
GRAND CENTRAL PARKWAY
Jamaica Bay
Jewel Avenue
Parsons Boulevard
Utopia Parkway
Bell Boulevard
Francis Lewis Boulevard
Springfield Boulevard
Queens Boulevard
Kissena Boulevard
Van Wyck Expressway
Meadow Wyck Parkway
Grand Central Parkway
Van Wyck Expressway
Cross Island Parkway
Queens Boulevard
Van Wyck Expressway
Grand Central Parkway
Cross Island Parkway
Jamaica Bay
Little Neck Bay
Francis Lewis Boulevard
Bell Boulevard
Springfield Boulevard
Utopia Parkway
Kissena Boulevard
Parsons Boulevard

Table B

PRESENT CAPITAL BUDGET PROJECTS (1974-75)

Education

Project Description	Capital Budget #	Total Cost	Current Activity	Projected Completion
P.S. 29 Addition & Mod.	E-1717	$1,950,000	Prelim. Design	Spring 1979
P.S. 79 Addition	E-1480	5,500,000	Construction	Summer 1975
P.S. 94 Modernization	E- 643	Lump Sum	--	Completed 1974
P.S. 98 Playground	E- 683	Lump Sum	Construction	---
P.S. 129 Modernization	E- 643	Lump Sum	Construction	Spring 1975
Bayside H.S. Modernization	E-1596	2,750,000	Program Scope	---
Flushing H.S. Athletic Field Rehabilitation	E-1803	500,000	Program Scope	Fall 1976

Environmental Protection

Sewers				
Sanitary, 142 St.-143 Place, 14-15 Ave.	SE-2	Lump Sum	--	Completed 1974
Sanitary 128-130 St., 22-73 Ave.	SE-2	Lump Sum	--	Completed 1974
Sanitary, 136th St. 15th Ave.	SE-2	Lump Sum	Construction	Winter 1975
Sanitary, 127th St., 26th Ave.	SE-2	Lump Sum	--	Completed 1974
Sanitary, Depew Ave., 243 St., 43 Ave.	SE-2	Lump Sum	Final Design	Spring 1975
Storm, 24th Ave., Little Neck Bay	SE-43	4,300,000	Construction	Summer 1976
Storm, 138 St., 7th-11th Av.	SE-288	1,500,000	Construction	Winter 1976
Storm, 148 St., 3rd Ave.	SE-291	585,000	Construction	Winter 1976
Sanitary, 233 St., Alley Park	SE-339	6,850,000	Prograr Scope	Start Winter 1976
Sanitary, Douglaston Pkwy. from Horace Harding Expwy.	SE-2	Lump Sum	Final Design	Start Summer 1975
Storm, Douglaston Parkway north of Horace Harding Expwy	SE-200	Lump Sum	Final Design	Start Spring 1975
Temporary Storm Drain, 137 St south of 29th Road	SE-200	Lump Sum	Prelim. Design	Start Winter 1975
Storm, College Point Industrial Park	SE-382	15,000,000	Program Scope	---
Pumping Stations				
Clearview, Upgrading	SE-130	Lump Sum	Program Scope	---
Douglaston, Upgrading	SE-130	Lump Sum	Program Scope	---
24th Ave., 217 Street	SE-130	Lump Sum	Program Scope	---
Water Pollution Control Plant				
Tallmans Island	WP-249	43,100,000	Construction	Summer 1976
Drainage Plan Study				
Douglaston-Little Neck	SE-100	Lump Sum	Program Scope	Winter 1975
College Point	SE-100	50,000	Program Scope	Winter 1975

Parks, Recreation and Cultural Affairs

Project Description	Capital Budget #	Total Cost	Status	Projected Completion
PARKS				
Bayside Dock, Rehab.	P-245	Lump Sum	Construction	Winter 1975
Little Bay Park, Dev.	P-713	300,000	Program Scope	---
Udalls Cove, Acquisition	P-56	325,000	Planning	---
LIBRARIES				
Oakland Gardens, New	L-173	790,000	Construction	Summer 1975
Bay Terrace, New	L-211	740,000	Construction	Summer 1975
Windsor Park, Renovation	L-232	225,000	Final Design	---

Highways and Streets

Marathon Pk'way to Little Neck Pk'way	HW-1	Lump Sum	Prelim. Design	Summer 1975
Springfield Blvd., Northern Blvd. to 47th Rd.	HW-39	410,000	Final Design	Summer 1975
Bell Blvd., Cross Island Parkway to 35th Ave.	HW-87	1,700,000	Prelim. Design	Fall 1977
Clintonville St., Paving	HW-190	950,000	Construction	Spring 1975
138th St., 13th Ave. to 11th Ave., Paving	HW-1	Lump Sum	Prelim. Design	Start Winter 1976
3rd Ave., 147th St. to 149th St., Paving	HW-1	Lump Sum	Prelim. Design	Start Spring 1976
39th Ave., 234th St. to Douglaston Parkway, Paving	HW-1	Lump Sum	Final Design	Start Winter 1975

Other Projects

Flushing Bus Terminal	TD-6	4,400,000	Pending	Winter 1977
Bayside Parking Field	TF-459	117,000	---	Completed

Table C

Recommended New Capital Improvements

Highways and Streets
College Point

Project Designation	Estimated Cost
20th Ave., Upgrading	540,000
18th Ave., Upgrading	125,000
New Access Road	
122-125 St.	150,000
125-127 St.	75,000
127 St.-6th Ave.	180,000
6th Ave.-11th Ave.	420,000
11th Ave.-14th Ave.	120,000
14th Ave.-18th Ave.	240,000
14th Ave., Repaving	1,200,000
Bay Terrace	
New 26th Ave. Ramps, Clearview Expwy.	500,000
Improve intersections, 26th Ave.-Bell Blvd.	50,000
Improve intersection 212 St.-Bell Blvd.	50,000
Improve Willets Point Blvd. Exit, Cross Island Parkway	260,000
Environmental Protection	
Sewers, Douglaston Manor area	600,000
Pumping station and regulator upgrading Douglaston and Whitestone	900,000
Total Estimated Cost	$5,410,000

NOTE:

Utility and road improvements at interface of development sites and existing systems are not included above and are to be made by developer.

Recommended Park Acquisition

Location	Acq. Cost (Est.)	Acreage	Remarks
Powells Cove, 11th Ave. 131-138 Streets	$1,000,000	11	Improvements estimated to cost $750,000 (1978-79)
Bay Terrace, 24th Ave. 217th Street	0	8	To be transferred from parkway to PRCA; improvements to be programmed.
Udalls Cove	325,000	33	Represents balance of acq. cost, 50% of which is City's share. Initially funded in 1973-74.
Alley Park, extension			
Sites P & Q	770,000	12	
Sites O	900,000	14	

Table D

Sanitary Sewer Capacities: College Point Interceptor Area
College Point Community

Inlet Area	Location	Service Area (Acres)	Design Population* [1]	1973 Population (Estimated)	Maximum Potential Additional Population**	Potential Development Sites [2]
Regulator 1	Poppenhusen Ave. & College Place	99	8,065	2,281	5,784	E, F [3]
Regulator 2	9th Ave. & Powell's Blvd.	60	10,215	1,065	9,150	C, D [3]
Regulator 3	20th Ave. & 119th St.	135	23,387	4,291	19,096	
Regulator 4	22nd Ave. & 119th St.	17	1,344	585	759	
Regulator 5	23rd Ave. & 119th St.	57	4,436	2,068	2,368	A, B [3]
Regulator 6	25th Ave. & 120th St.	29	2,688	703	1,985	
Regulator 7	14th Ave. & 110th St.	11	2,151	910	1,241	
Regulator 8	15th Ave. & 110th St.	55	2,823	1,174	1,649	
Totals		463	55,108	13,068	42,040	

Notes: 1. Design population refers to the population that can be served by the facility based on its design specifications and the calculated sanitary flows for each community (150 gallons per capita per day for College Point.)
2. Each letter refers to a potential residential development identified in map on page .
3. The development should be required to regulate its own flows. This involves the separation of the storm and sanitary flows by directing the storm flow overboard and the sanitary flow to the interceptor.

Source:
* Department of Water Resources
** Department of City Planning

Sanitary Sewer Capacities: Whitestone Interceptor Area
Whitestone & Bay Terrace Communities

Inlet Area	Location	Service Area (Acres)	Design Population[1]*	1973 Population (Estimated)	Maximum Potential Additional Population**	Potential Development[2]
Pumping Station	24th Ave. & 217th St.	303	12,258	5,391	6,867	N[3]
Pumping Station	Roe Pl. & Cross Island Parkway	1011	27,581	21,619	5,962	M[3]
	- with one pump added[4]		55,162	21,619	33,543	
Regulator A	15th Drive & 166th Street	880	52,689	23,900	28,789	
Pumping Station	154th & Powell's Cove Boulevard	274	19,219	7,150	12,069	J,K[3]
Regulator B	7th Avenue & 151st Street	172	6,721	3,050	3,671	
Regulator C (System Totals)	11th Avenue & 138th St.	2,735	188,174	63,409	124,765	

Notes:
1. Design population refers to the population that can be served by the facility based on its design specifications and the calculated sanitary flows for each community (110 gallons per capita per day for Whitestone/Bay Terrace).
2. Each letter refers to a potential residential development identified in map on page.
3. The development should be required to regulate its own flows and to bypass, or help upgrade, the existing pumping station.
4. Sewer project SE-130 (in planning).

Sources:
* Department of Water Resources
**Department of City Planning

College Point- Whitestone, School enrollment by year, 1967-1974

A. Schools nearest potential development sites:

	1967	1968	1969	1970	1971	1972	1973	1974
PS 27[1]	530	556	494	Admin	-	-	-	-
PS 29	621	621	629	622	629	599	591	595
PS 129[2]	Annex (361)	Annex (414)	Annex (434)	613	618	630	613	631
JHS 185	1490	1510	1447	1295	1155	1065	982	959
JHS 194	1577	1596	1592	1438	1352	1362	1297	1152

B. Other elementary schools in College Point-Whitestone:

	1967	1968	1969	1970	1971	1972	1973	1974
PS 21	1375	1155	1144	1190	1179	1179	1141	1134
PS 79	1067	1041	1037	1005	1001	960	934	921
PS 169[3]	1044	974	971	989	1002	1017	986	1090
PS 184	746	729	691	674	668	566	589	560
PS 193	981	973	933	904	876	906	845	807
PS 209[3]	938	879	869	843	848	822	798	779

1 Until 1970, PS 27 was used as a primary school for grades K-5. It is now used for administrative purposes.

2 Until 1970, PS 129 was used as an annex to JHS 194. It now operates on a K-5 basis.

3 See note on Table E2.

Bay Terrace and Bayside, School Enrollment By Year, 1967-1974

(a) Schools nearest potential development sites:

	1967	1968	1969	1970	1971	1972	1973	1974
PS 169[1]	1044	974	971	989	1002	1017	986	1090
PS 209[1]	938	879	869	843	848	822	798	779
JHS 158	1490	1412	1415	1176	1134	1172	1227	1136
JHS 25*	-	-	-	1139	1671	1784	1783	1822
JHS 194	1577	1596	1592	1438	1352	1362	1297	1152

*Opened in 1970

(b) Other public schools in Bayside:

	1967	1968	1969	1970	1971	1972	1973	1974
PS 31	555	547	537	520	499	460	415	378
PS 41	661	711	709	713	648	583	504	490
PS 46	641	595	575	502	422	384	321	320
PS 130	528	556	510	505	534	519	524	512
PS 159	575	611	631	589	623	573	546	500
PS 162	935	805	764	710	624	608	572	575
PS 177	622	546	508	467	473	425	399	352
PS 188	544	514	445	433	437	406	432	434
PS 203	946	953	1003	968	967	946	882	831
PS 205	902	843	815	805	736	707	611	557
PS 213	809	799	755	763	771	691	618	539
IS 74	1558	1489	1391	1267	1252	1211	1166	1059

1 For information only, not used in making enrollment projections in Bayside, see note in Table E2.

Douglaston-Little Neck, School Enrollment By Year, 1967-1974

(a) Schools nearest potential development sites:

	1967	1968	1969	1970	1971	1972	1973	1974
PS 98	429	401	417	428	407	418	427	411
PS 186	1031	963	939	931	945	868	815	795
PS 187	611	530	425	453	417	459	454	422
PS 221	862	853	834	760	719	660	609	530
JHS 67	1488	1567	1547	1479	1293	1120	903	944

(b) Other schools in Douglaston-Little Neck:

	1967	1968	1969	1970	1971	1972	1973	1974
PS 18	386	374	322	348	301	266	255	253
PS 94	498	471	467	470	483	487	485	446
PS 115	846	785	731	718	698	653	618	588
PS 133	792	747	724	675	656	638	601	563
PS 191	517	487	476	481	473	442	434	455
JHS 172	1648	1561	1454	1312	1317	1370	1391	1341

Table E

College Point-Whitestone Public School Utilization, 1974-75

(a) 1974-75 individual school utilization

Schools	Capacity	Enrollment	Available Seats	% Utilization
P.S. 21	1281	1134	147	89%
P.S. 79[1]	985	921	64	94
P.S. 129	769	631	138	82
P.S. 169	1157	1090	67	94
P S. 184	785	560	225	72
P.S. 193	909	807	102	89
P.S. 209	1040	779	261	75
Total	6926	5922	1004	85%
JHS 185	1186	959	227	81
JHS 194	1503	1152	391	77
Total	2689	2111	618	79

[1] P.S. 79 has a 250 seat addition under construction due to be completed before Septemb
Sources: Board of Education and Department of City Planning.

(b) Projected elementary school utilization (Community-wide)

	Capacity	Projected Enrollment[2]	Available Seats	% Utilization
75-76[1]	7176	5542	1634	77
76-77	7176	5282	1894	74
77-78	7176	5072	2104	71
78-79	7176	4789	2387	67

1. PS 79 has a 250 seat addition under construction due to be completed before September, 1975. This addition is included in capacity as of 1975-76.

2. Based on birth data from the Department of Health, Bureau of Vital Statistics, and enrollment data from the Board of Education, School Planning and Research Division.

NOTE: P.S. 29 is not shown here because it was included in the Flushing neighborhood study in the Board of Education Program Planning Data Book which was used as the basis for projections. P.S. 29 as of October 31, 1974 had a capacity of 800 students with 595 students enrolled. The school operated at 73 percent of capacity with 205 available seats.

Bayside, Public School Utilization, 1974-75

(a) 1974-75 individual school utilization

School	Capacity	Enrollment	Available Seats	% Utilization
P.S. 31	738	378	360	49
P.S. 41	845	490	355	58
P.S. 46	832	320	512	39
P.S. 130	675	512	163	76
P.S. 159	834	500	334	60
P.S. 162	983	575	408	59
P.S. 177	758	352	406	46
P.S. 183	722	434	288	60
P.S. 203	1063	831	232	78
P.S. 205	1151	557	594	48
P.S. 213	974	539	435	55
Total	9575	5488	4087	57
I.S. 74	1227	1059	168	86
JHS 158	1369	1136	233	83
JHS 25	1866	1822	44	98
JHS 194	1593	1152	441	72
Total	5965	5169	886	85

Note: P.S. 169 and P.S. 209 though located in Bay Terrace and Clearview, respectively, are included in the College Point-Whitestone neighborhood Study area by the Board of Education because they are situated in Health Area 2.22 which consists mostly of Whitestone and Clearview. Birth data are reported by Health Area and must be uniformly collected in order to make accurate enrollment projections.

(b) Projected elementary school utilization (Community-wide)

	Capacity	Projected Enrollment[1]	Available Seats	% Utilization
75-76	9575	5455	4120	57
76-77	9575	5142	4433	54
77-78	9575	4871	4704	51
78-79	9575	4483	5092	47

[1] Based on birth data from the Department of Health, Bureau of Vital Statistics, and enrollment data from the Board of Education, School Planning and Research Division.

Table F

Douglaston-Little Neck, School Utilization, 1974-75

(a) 1974-75 individual school utilization

School	Capacity	Enrollment	Available Seats	% Utilization
P.S. 18	708	253	455	36%
P.S. 94	568	446	122	79
P.S. 98	489	411	78	84
P.S. 115	983	588	395	60
P.S. 133	1104	563	541	51
P.S. 186	1137	785	352	69
P.S. 187	704	422	282	60
P.S. 191	683	455	238	65
P.S. 221	832	530	302	64
Total	7208	4443	2765	62
JHS 67	1518	944	574	62
JHS 172	1527	1341	186	88
Total	3045	2285	760	75

(b) Projected elementary school utilization (Community-wide)

	Capacity	Projected Enrollment[1]	Available Seats	% Utilization
75-76	7208	3999	3209	55
76-77	7208	3786	3422	53
77-78	7208	3521	3687	49
78-79	7208	3218	3990	45

[1] Based on birth data from the Department of Health, Bureau of Vital Statistics, and enrollment data from the Board of Education, School Planning and Research Division.

RECREATIONAL OPEN SPACE RESOURCES

College Point

Programmed Parks

Name	Predominate Usage	Acreage	
MacNeil Park	Active/Passive	28.8	
Golden Park	Active	11.0	
Tallman's Island Park	Passive	4.3	
Powell's Cove Park	Passive	1.7	
College Point Park	Child use	1.1	
115th Street Tot. Lot	Child use	.3	
Poppenhusen Park	Memorial	.5	
			47.2

School Playgrounds

P. S. 129	Active	1.1	
P. S. 29	Active	1.1	
P. S. 27	Active	.5	
			2.7

Other Recreational

C. P. Recreation Assoc. (Private)	Active	22.0	
Powell's Cove (Potential)	Active/Passive	21.0	
			43.0
	TOTAL		92.9

OPEN SPACE RESOURCES IN WHITESTONE

Programmed Parks

Name	Predominate Usage	Acreage	
Francis Lewis Park	Active	16.8	
			16.8

Playgrounds

Alfred J. Kennedy P. S. 193	Active	1.5	
Wm. H. Carr, J.HS. 194	Active	1.6	
P. S. 79	Active	1.4	
George A. Harvey	Active	8.8	
			13.3

Other Recreational

LeHavre Housing (Pvt.)	Active/Passive	17.5	
Alexander Gray Square	Memorial	.0	
Pvt.Edw. M. McKee Sq.	Memorial	.2	
			17.6
	TOTAL		47.7

Table G

OPEN SPACE RESOURCES IN BAY TERRACE

Programmed Parks			
Name	Predominate Usage	Acreage	
Little Bay Park (Clearview Beach)	Active/Passive	26.9	
Little Neck Bay Park	Passive	3.2	
			30.1
Playgrounds			
P. S. 169 (including plazas)	Active/Passive	1.7	
			1.7
Other Recreational			
Apartment complex Grounds (private) (Includes parking, and amenity areas)	Active/Passive	25.1	
			25.1
	TOTAL		56.9
Undeveloped Public Areas			
Cross Island Parkway at 24th Avenue		8.0	
Cross Island Parkway at 212th Street		4.5	
26th Avenue and Cpl. Kennedy Drive		2.7	
			15.2

OPEN SPACE RESOURCES IN CREEDMOOR

Parks			
Name	Predominate Usage	Acreage	
Glen Oaks Village Oval	Active	2.9	
School Playgrounds			
P. S. 186		2.0	
Other Recreational			
N. S. Towers Development (Private)	Active	126	
N.Y.S. Children's Psychiatric Hospital	Child-use	4.0	
	TOTAL		134.9

COASTAL VEGETATION IN NORTHEASTERN QUEENS COUNTY (acres)

VEGETATION TYPE	College Point	Whitestone -Beechhurst	Fort Totten	"Alley"- Douglaston	TOTAL
Tall Cordgrass	2.1	5.0	4.7	40.6	52.4
Salt Meadow	----	0.5	0.5	63.4	64.4
Reed	---	----	17.0	93.6	110.6
Old Field	55.7	22.8	----	94.9	173.4
Salt Shrub Swamp	0.4	0.2	0.4	4.1	5.1
Young Woods	3.1	7.0	1.2	1.5	12.8
Mature Hardwoods Forest	----	5.1	12.4	84.8	102.3
Freshwater types (combined)	----	----	----	16.4	16.4
Lawns	----	----	30.6	49.5	80.1
Rockweed	4.1	9.6	6.0	----	19.7
TOTAL	65.4	50.2	72.8	448.8	637.2

Source: Dr. Andrew Greller, "Survey of the Vegetation of the Coastline of Queens County," report to the City Planning Department, 1974.

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